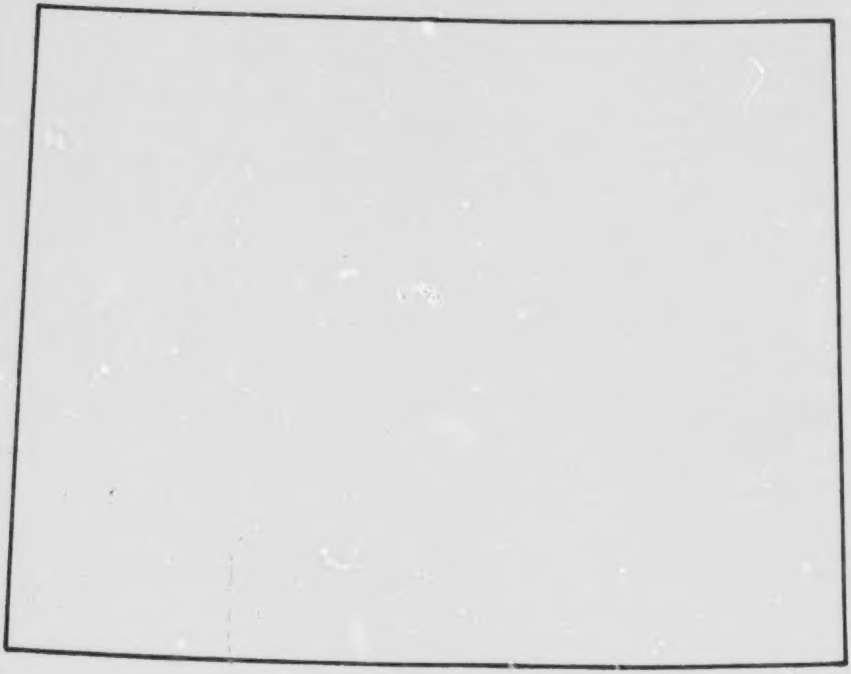
Water Resources Data
Wyoming
Water Year 1984

484

ORIGINAL



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-84-1
Prepared in cooperation with the State of Wyoming
and with other agencies

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CALENDAR FOR WATER YEAR 1984

1983

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U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data Wyoming
Water Year 1984

by S.A. Druse, and S.J. Rucker, IV

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-84-1
Prepared in cooperation with the State of Wyoming
and with other agencies

I

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Wyoming write to
District Chief, Water Resources Division
U.S. Geological Survey
2120 Capitol Avenue
P.O. Box 1125
Cheyenne, Wyoming 82003

1985

PREFACE

This annual hydrologic data report of Wyoming is one of a series of annual reports that documents hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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J.D. Walgren
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P.B. McCollam

S.L. Green typed the text of the report.

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16. Abstract (Limit: 200 words)

Water resources data for the 1984 water year for Wyoming consists of records of stage, discharge and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 186 gaging stations; stage and contents for 14 lakes and reservoirs; water quality for 72 gaging stations, and 66 ungaged stations; and water levels for 4 observation wells. Also included are 32 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

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CONTENTS

Page

Preface........ III
List of gaging stations, in downstream order, for which records are published........ VI
Introduction........ 1
Hydrologic conditions........ 4
Definition of terms........ 10
Downstream order and station number........ 16
Numbering system for wells and miscellaneous sites........ 16
Special networks and programs........ 17
Explanation of stage and water-discharge records........ 17
  Collection and computation of data........ 17
  Accuracy of field data and computed results........ 19
  Other data available........ 20
  Records of discharge collected by agencies other than the Geological Survey........ 20
Explanation of water-quality records........ 20
  Collection and examination of data........ 20
  Water analysis........ 20
  Water temperature........ 20
  Sediment........ 21
Explanation of ground-water level records........ 21
  Collection of the data........ 21
Access to WATSTORE data........ 21
Publications of techniques of water-resources investigations........ 22
Gaging station records........ 23
Discharge at crest-stage partial-record stations and miscellaneous sites........ 428
Analyses of samples collected at water-quality miscellaneous sites........ 433
Ground-water records........ 455
  Ground-water level records........ 455
  Quality of ground-water records........ 457
Index........ 465

ILLUSTRATIONS

Figure 1. Location of lake- and stream-gaging stations and water-quality stations........ 2
2. Location of crest-stage partial-record stations and ground-water observation wells........ 3
3. Monthly and annual mean discharge of major rivers in Wyoming for the 1984 water year, monthly and annual maximum and median discharge for period of record, and percentage of normal precipitation........ 6
4. Water-level fluctuations from January 1980 to September 1984 in observation wells located in areas of extensive ground water withdrawals........ 8
5. System for numbering wells and miscellaneous sites (latitude and longitude)...... 16
6. System for numbering wells and miscellaneous sites (township and range)........ 17

Table 1. Precipitation for selected periods of the 1984 water year and the departure from normal, in the major drainage basins........ 4
2. Peak discharge for the 1984 water year and for the periods of record at selected stations in south-central Wyoming........ 5
3. Results of t-tests comparing specific-conductance means for the 1984 water year with means for 1974-83 at selected water-quality sampling stations........ 9

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

Letter after station name designates type of data: [(d) discharge, (e) elevation, gage height, or contents, (c) chemical, (b) biological, (m) microbiological, (p) pesticides, (t) water temperature, (s) sediment]

Page

MISSOURI RIVER BASIN

MADISON RIVER BASIN

- Firehole River (head of Madison River) near West Yellowstone, MT (d) 23
  - Gibbon River near West Yellowstone, MT (d) 24
- Madison River near West Yellowstone, MT (d) 25

YELLOWSTONE RIVER BASIN

- Yellowstone River at Corwin Springs, MT (d) 27
  - Clarks Fork Yellowstone River near Belfry, MT (dcps) 28
  - Wind River (head of Bighorn River) near Dubois, WY (dc) 32
    - East Fork Wind River near Dubois, WY (dcs) 34
    - Crow Creek near Tipperary, WY (dc) 36
    - Bull Lake Creek above Bull Lake, WY (dc) 38
    - Bull Lake Creek near Lenore, WY (d) 40
  - Wind River near Crowheart, WY (d) 41
  - Wind River at Riverton, WY (dc) 42
    - Little Wind River:
      - South Fork Little Wind River above Washakie Reservoir, near Fort Washakie, WY (dc) 44
    - Little Wind River above Arapahoe, WY (dc) 46
      - Popo Agie River at Hudson Siding, near Lander (cm) 49
        - Little Popo Agie River near Lander, WY (d) 50
      - Popo Agie River near Arapahoe, WY (dcp) 51
    - Little Wind River near Riverton, WY (dc) 54
  - Wind River above Boysen Reservoir, near Shoshoni, WY (cm) 56
    - Fivemile Creek near Shoshoni, WY (cs) 57
    - Muddy Creek near Shoshoni, WY (cs) 58
  - Wind River below Boysen Reservoir, WY (dcms) 59
  - Bighorn River:
    - South Fork Owl Creek near Anchor, WY (dc) 63
    - South Fork Owl Creek below Anchor Reservoir, WY (dc) 65
  - Bighorn River at Lucerne, WY (cm) 67
    - Nowater Creek:
      - East Fork Nowater Creek near Colter, WY (d) 68
    - Fifteenmile Creek near Worland, WY (dcs) 69
  - Bighorn River at Worland, WY (c) 74
    - Slick Creek near Worland, WY (c) 75
    - Nowood River near Ten Sleep, WY (dcp) 76
      - Paint Rock Creek near mouth, below Hyattville, WY (cp) 78
    - Nowood River at Manderson, WY (c) 79
  - Bighorn River at Basin (dcp) 80
    - Greybull River:
      - Wood River at Sunshine, WY (d) 82
    - Greybull River at Meeteetse, WY (d) 83
    - Greybull River near Basin, WY (cp) 84
    - Shell Creek above Shell Reservoir, WY (d) 85
    - Shell Creek near Shell, WY (d) 86
    - Shell Creek at Porter Gulch, near Greybull, WY (p) 87
    - Shell Creek near Greybull, WY (c) 87
  - Bighorn River at Kane, WY (dcmps) 88
    - Shoshone River:
      - North Fork Shoshone River:
        - Middle Creek at East Entrance, Yellowstone National Park, WY (d) 91
      - North Fork Shoshone River near Wapiti, WY (dct) 92
      - South Fork Shoshone River near Valley, WY (d) 95
      - South Fork Shoshone River above Buffalo Bill Reservoir, WY (dct) 96
        - Diamond Creek near mouth, near Cody, WY (d) 99
    - Shoshone River below Buffalo Bill Reservoir, WY (dc) 100
    - Shoshone River above Dry Creek, near Cody, WY (cm) 102
    - Shoshone River near Garland, WY (p) 103
      - Bitter Creek below sewage lagoon, near Powell, WY (cm) 104
      - Bitter Creek near Garland, WY (dcm) 105
      - Whistle Creek near Garland, WY (dc) 107
    - Shoshone River near Lovell, WY (dc) 109
      - Sage Creek at Sidon Canal, near Deaver, WY (dc) 111
    - Shoshone River at Kane, WY (cm) 113
  - Bighorn Lake near St. Xavier, MT (e) 114
  - Bighorn River near St. Xavier, MT (d) 115
    - Little Bighorn River below Dayton Gulch, near Burgess Junction, WY (d) 116
      - Dry Fork below Lick Creek, near Burgess Junction, WY (d) 117
      - Elkhorn Creek above Fuller Ranch ditch, near Parkman, WY (d) 118
      - West Fork Little Bighorn River near Parkman, WY (d) 119
    - Little Bighorn River at State line, near Wyola, MT (d) 120
      - Powers Upper Ditch (Spring Creek):
        - Red Canyon Creek near Parkman, WY (d) 121
      - Pass Creek:
        - West Pass Creek near Parkman, WY (d) 122
        - East Pass Creek near Dayton, WY (d) 123

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Page

MISSOURI RIVER BASIN--Continued

- YELLOWSTONE RIVER BASIN--Continued
  - Bighorn River--Continued
    - Little Bighorn River--Continued
      - Pass Creek--Continued
        - Twin Creek near Parkman, WY (d) . . . 124
      - Lodge Grass Creek at State line, near Wyola, MT (d) . . . 125
  - Tongue River near Dayton, WY (d) . . . 126
    - Wolf Creek at Wolf, WY (d) . . . 127
    - East Fork Big Goose Creek (head of Goose Creek) near Big Horn, WY (d) . . . 128
      - West Fork Big Goose Creek near Big Horn, WY (d) . . . 129
    - Big Goose Creek near Sheridan, WY (d) . . . 130
      - Little Goose Creek in canyon, near Big Horn, WY (d) . . . 131
      - Little Goose Creek at Sheridan, WY (cmp) . . . 132
    - Goose Creek below Sheridan, WY (dcm) . . . 133
    - Goose Creek near Acme, WY (dcm) . . . 136
    - Squirrel Creek near Decker, MT (dcs) . . . 138
    - Prairie Dog Creek near Acme, WY (p) . . . 141
  - Tongue River at State line, near Decker, MT (dcmp) . . . 142
  - Middle Fork Powder River (head of Powder River) near Barnum, WY (d) . . . 146
    - Beaver Creek below Bayer Creek, near Barnum, WY (d) . . . 147
    - Beaver Creek above White Panther ditch, near Barnum, WY (d) . . . 148
  - Middle Fork Powder River above Kaycee, WY (dcm) . . . 149
    - North Fork Powder River near Hazelton, WY (d) . . . 151
    - North Fork Powder River below Bull Creek, near Hazelton, WY (d) . . . 152
    - North Fork Powder River below Pass Creek, near Mayoworth, WY (d) . . . 153
  - Powder River near Kaycee, WY (cm) . . . 154
    - South Fork Powder River near Kaycee, WY (dcs) . . . 155
    - Salt Creek near Sussex, WY (dcs) . . . 160
  - Powder River at Sussex, WY (dcst) . . . 163
    - Dead Horse Creek near Buffalo, WY (d) . . . 169
    - North Fork Crazy Woman Creek below Pole Creek, near Buffalo, WY (d) . . . 170
    - North Fork Crazy Woman Creek near Buffalo, WY (d) . . . 171
    - Crazy Woman Creek at upper station, near Arvada, WY (p) . . . 172
  - Powder River at Arvada, WY (dcs) . . . 173
    - Clear Creek near Buffalo, WY (d) . . . 177
      - Rock Creek near Buffalo, WY (d) . . . 178
    - Clear Creek below Rock Creek near Buffalo, WY (cmp) . . . 179
    - Clear Creek at Ucross, WY (p) . . . 180
      - South Piney Creek (head of Piney Creek) at Willow Park, WY (d) . . . 181
      - Piney Creek at Kearny, WY (d) . . . 182
      - Piney Creek at Ucross, WY (p) . . . 183
    - Clear Creek near Arvada, WY (cp) . . . 184
  - Powder River at Moorhead, MT (dc) . . . 185
    - Little Powder River above Dry Creek, near Weston, WY (d) . . . 187
- Reservoirs in Yellowstone River basin in Wyoming (e) . . . 188

CHEYENNE RIVER BASIN

- Cheyenne River:
  - Black Thunder Creek near Hampshire, WY (d) . . . 190
- Cheyenne River at Riverview, WY (p) . . . 191
  - Beaver Creek near Newcastle, WY (dc) . . . 192
- Cheyenne River at Edgemont, SD (d) . . . 194
  - Belle Fourche River:
    - Donkey Creek near Moorcroft, WY (cm) . . . 195
  - Belle Fourche River below Moorcroft, WY (cmp) . . . 196
  - Keyhole Reservoir near Moorcroft, WY (e) . . . 197
  - Belle Fourche River below Keyhole Reservoir, WY (dp) . . . 198
  - Belle Fourche River at Devils Tower, WY (cp) . . . 200
  - Belle Fourche River below Hulett, WY (cmp) . . . 201
  - Belle Fourche River at Wyoming-South Dakota State line (dc) . . . 202
    - Redwater Creek:
      - Murray ditch at Wyoming-South Dakota State line (d) . . . 204
    - Redwater Creek at Wyoming-South Dakota State line (d) . . . 205

NIOBRARA RIVER BASIN

- Niobrara River at Wyoming-Nebraska State line (d) . . . 206

PLATTE RIVER BASIN

- North Platte River (head of Platte River) near Northgate, CO (dcp) . . . 207
  - North Brush Creek (head of Brush Creek) near Saratoga, WY (d) . . . 209
    - South Brush Creek near Saratoga, WY (d) . . . 210
  - Encampment River above Hog Park Creek, near Encampment, WY (dcms) . . . 211
  - Encampment River at mouth, near Encampment, WY (dc) . . . 214
- North Platte River at Highway 130, near Saratoga, WY (p) . . . 216
  - Pass Creek near Elk Mountain, WY (d) . . . 217
- North Platte River above Seminoe Reservoir, near Sinclair, WY (dcm) . . . 218
  - Medicine Bow River:
    - Rock Creek above King Canyon Canal, near Arlington, WY (d) . . . 221
    - Little Medicine Bow River near Medicine Bow, WY (dc) . . . 222
    - Little Medicine Bow River at Boles Spring, near Medicine Bow, WY (d) . . . 225

Page

MISSOURI RIVER BASIN--Continued
- PLATTE RIVER BASIN--Continued
- North Platte River--Continued

    - Medicine Bow River above Seminoe Reservoir, near Hanna, WY (dc) . . . 226
  - Seminoe Reservoir near Leo, WY (e) . . . 228

  - North Platte River:
    - Sweetwater River:

      - Rock Creek above Rock Creek Reservoir, WY (d) . . . 229
    - Sweetwater River near Sweetwater Station, WY (d) . . . 230
    - Sweetwater River near Alcova, WY (dc) . . . 231
      - Horse Creek at Highway 220, near Alcova, WY (p) . . . 233
  - Pathfinder Reservoir near Alcova, WY (e) . . . 234
  - Alcova Reservoir at Alcova, WY (e) . . . 235
  - North Platte River at Alcova, WY (dcms) . . . 236
    - Bates Creek near Freeland, WY (c) . . . 240
    - Stinking Creek above Lawn Creek, near Alcova, WY (dcs) . . . 241
    - Bates Creek near Alcova, WY (c) . . . 246
  - North Platte River near Goose Egg, WY (dts) . . . 247
  - North Platte River above Poison Spider Creek, near Goose Egg, WY (cms) . . . 252
  - North Platte River at Mills, WY (cm) . . . 254
    - Casper Creek at Casper, WY (cm) . . . 255
  - North Platte River at Casper, WY (cmp) . . . 256
  - North Platte River below Casper, WY (cm) . . . 258
    - Deer Creek below Millar wasteway, at Glenrock, WY (dc) . . . 260
  - North Platte River near Glenrock, WY (dc) . . . 262
    - Box Elder Creek at Boxelder, WY (d) . . . 264
    - Box Elder Creek near Boxelder, WY (d) . . . 265
    - Box Elder Creek at Converse County Park, near Careyhurst, WY (d) . . . 266
      - Little Box Elder Creek near Careyhurst, WY (d) . . . 267
      - Little Box Elder Creek at Little Box Elder Cave, near Careyhurst, WY (d) . . . 268
        - Little Box Elder Spring near Careyhurst, WY (d) . . . 269
    - Cottonwood Creek near Careyhurst, WY (d) . . . 270
    - Box Elder Creek below Interstate 25, near Careyhurst, WY (c) . . . 271
    - La Prele Creek near Douglas, WY (d) . . . 272
    - La Prele Creek near Orpha, WY (c) . . . 273
    - Wagonhound Creek near La Bonte, WY (c) . . . 274
    - La Bonte Creek near La Bonte, WY (c) . . . 275
  - North Platte River at Orin, WY (dcmp) . . . 276
  - Glendo Reservoir near Glendo, WY (e) . . . 279
  - North Platte River below Glendo Reservoir, WY (dcp) . . . 280
  - Guernsey Reservoir near Guernsey, WY (e) . . . 282
  - North Platte River below Guernsey Reservoir, WY (dc) . . . 283
  - North Platte River below Whalen diversion dam, WY (d) . . . 285
    - Laramie River and Pioneer Canal near Woods, WY (d) . . . 286
      - Sand Creek at Colorado-Wyoming State line (d) . . . 288
    - Laramie River above Howell, WY (cm) . . . 289
    - Laramie River at Two Rivers, WY (p) . . . 291
      - Little Laramie River near Filmore, WY (d) . . . 292
      - Little Laramie River at Two Rivers, WY (cp) . . . 293
    - Laramie River near Bosler, WY (d) . . . 294
    - Laramie River near Lookout, WY (d) . . . 295
      - Sybille Creek above Mule Creek, near Wheatland, WY (dp) . . . 296
      - Sybille Creek above Canal No. 3, near Wheatland, WY (d) . . . 298
      - Wheatland Creek below Wheatland, WY (cm) . . . 299
      - Chugwater Creek at Platte-Laramie County line, near Chugwater, WY (p) . . . 300
      - Chugwater Creek at Chugwater, WY (p) . . . 301
      - Chugwater Creek at Uva, WY (p) . . . 301
    - Laramie River near Fort Laramie, WY (dc) . . . 302
    - Rawhide Creek near Lingle, WY (d) . . . 304
    - Cherry Creek drain near Torrington, WY (d) . . . 305
    - Katzer drain near Henry, NE (d) . . . 306
  - North Platte River at Wyoming-Nebraska State line (dcm) . . . 307
  - North Platte River at Mitchell, NE (d) . . . 310

  - South Platte River:

    - Crow Creek at F. E. Warren AFB, WY (p) . . . 311
    - Crow Creek near Cheyenne, WY (p) . . . 311

COLORADO RIVER BASIN
- GREEN RIVER BASIN

  - Green River at Warren Bridge, near Daniel, WY (d) . . . 312
    - North Horse Creek above Sherman Ranger Station, WY (d) . . . 313
    - South Horse Creek near Merna, WY (d) . . . 314
    - Horse Creek near Daniel, WY (d) . . . 315

    - Cottonwood Creek:

      - South Cottonwood Creek near Big Piney, WY (d) . . . 316
  - Green River near Big Piney, WY (c) . . . 317

    - New Fork River:

      - Pine Creek above Fremont Lake, WY (d) . . . 318
      - East Fork River near Big Sandy, WY (d) . . . 319
    - New Fork River near Big Piney, WY (dc) . . . 320

Page

COLORADO RIVER BASIN--Continued
GREEN RIVER BASIN--Continued
Green River--Continued

North Piney Creek above Apperson Creek, near Mason, WY (d) 322
La Barge Creek near Viola, WY (d) 323
Green River near La Barge, WY (dcp) 324
Fontenelle Creek near Herschler Ranch, near Fontenelle, WY (d) 326
Fontenelle Reservoir near Fontenelle, WY (e) 327
Green River below Fontenelle Reservoir, WY (dc) 328
Big Sandy River at Leckie Ranch, near Big Sandy, WY (d) 330
Big Sandy River near Farson, WY (d) 331
Big Sandy River below Big Sandy Reservoir, WY (c) 332
Big Sandy River at Farson, WY (c) 333
Little Sandy Creek at Farson, WY (c) 334
Big Sandy River below Farson, WY (dct) 335
Big Sandy River at Gasson Bridge, near Eden, WY (dcpt) 339
Bitter Creek above Killpecker Creek, at Rock Springs, WY (p) 343
Killpecker Creek at Rock Springs, WY (p) 343
Green River near Green River, WY (dcmts) 344
Green River below Green River, WY (cm) 351
Blacks Fork near Robertson, WY (d) 353
Blacks Fork near Millburne, WY (d) 354
East Fork of Smiths Fork, near Robertson, WY (d) 355
Smiths Fork near Lyman, WY (p) 356
Blacks Fork near Lyman, WY (p) 356
Hams Fork below Pole Creek, near Frontier, WY (d) 357
Hams Fork near Diamondville, WY (cmp) 358
Hams Fork near Granger, WY (c) 359
Blacks Fork near Little America, WY (dcms) 360
Henrys Fork near Manila, UT (dcp) 364
Flaming Gorge Reservoir at Flaming Gorge Dam, UT (e) 366
Green River near Greendale, UT (dct) 367

Yampa River:

Little Snake River near Slater, CO (dc) 372
Slater Fork near Slater, CO (d) 374
Little Snake River near Dixon, WY (dcp) 375
Willow Creek near Dixon, WY (d) 377
Little Snake River below Baggs, WY (cmp) 378

GREAT SALT LAKE BASIN
BEAR RIVER BASIN
Bear River:

East Fork Bear River near Evanston, WY (d) 380
West Fork Bear River at Whitney Dam, near Oakley, UT (d) 381
West Fork Bear River below Deer Creek, near Evanston, WY (d) 382
Bear River near Utah-Wyoming State line (d) 383
Sulphur Creek above reservoir, near Evanston, WY (d) 384
Sulphur Creek below reservoir, near Evanston, WY (d) 385
Bear River at Evanston, WY (d) 386
Yellow Creek at mouth, near Evanston, WY (cm) 387
Chapman Canal at State line, near Evanston, WY (d) 388
Bear River above reservoir, near Woodruff, UT (dcm) 389
Woodruff Narrows Reservoir near Woodruff, UT (e) 392
Bear River below reservoir, near Woodruff, UT (d) 393
Bear River near Randolph, UT (d) 394
Bear River below Pixley Dam, near Cokeville, WY (d) 395
Smiths Fork near Border, WY (d) 396
Smiths Fork at Cokeville, WY (p) 397
Bear River below Smiths Fork, near Cokeville, WY (d) 398
Bear River at Border, WY (dcms) 399
Thomas Fork near Wyoming-Idaho State line (d) 402

SNAKE RIVER BASIN

Snake River near Moran, WY (d) 403

PACIFIC CREEK BASIN

Pacific Creek at Moran, WY (d) 404

BUFFALO FORK BASIN

Buffalo Fork above Lava Creek, near Moran, WY (d) 405

FLAT CREEK BASIN
Flat Creek:

Cache Creek near Jackson, WY (dcms) 406
Snake River below Flat Creek, near Jackson, WY (d) 409

HOBACK RIVER BASIN

Little Granite Creek at mouth, near Bondurant, WY (dcbms) 410
Snake River above reservoir, near Alpine, WY (dc) 421

GREYS RIVER BASIN

Greys River above reservoir, near Alpine, WY (d) 423

SALT RIVER BASIN

Salt River near Smoot, WY (c) 424
Swift Creek near Afton, WY (c) 425
Salt River above reservoir, near Etna, WY (dcp) 426

WATER RESOURCES DATA FOR WYOMING, 1984

INTRODUCTION

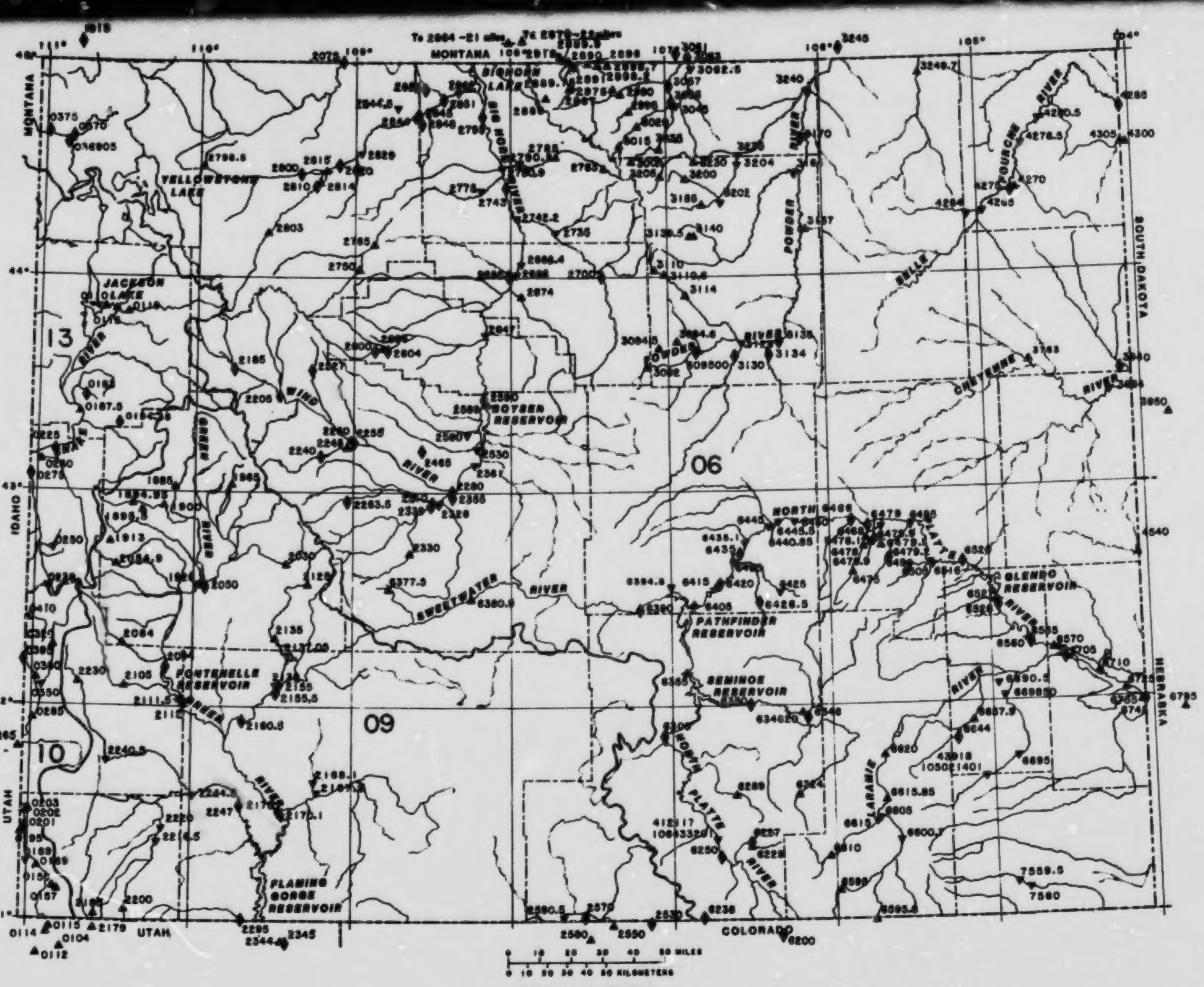
Water resources data for the 1984 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 186 gaging stations; stage and contents for 14 lakes and reservoirs; water quality for 72 gaging stations, and 66 ungaged stations; and water levels for 4 observation wells. Also included are 32 crest-stage partial-record stations. Locations of gaging stations and water-quality stations are shown in figure 1, and locations of observation wells and crest-stage partial-record stations are shown in figure 2. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Arlington, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report WY-84-1." Water-Data reports are for sale in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (307) 772-2153.


MONTANA
IDAHO
UTAH
COLORADO
NEBRASKA
SOUTH DAKOTA
111°
110°
109°
108°
107°
106°
105°
104°
45°
44°
43°
42°
41°
06
09
10
13
YELLOWSTONE LAKE
JACKSON LAKE
BIGHORN LAKE
BOYSEN RESERVOIR
PATHFINDER RESERVOIR
SEMINOE RESERVOIR
GLENDO RESERVOIR
FONTENELLE RESERVOIR
FLAMING GORGE RESERVOIR
SNAKE RIVER
GREEN RIVER
WIND RIVER
BIG HORN RIVER
SWEETWATER RIVER
NORTH PLATTE RIVER
POWDER RIVER
BELLE FOURCHE RIVER
CHEYENNE RIVER
LARAMIE RIVER
To 2964 -21 miles
To 2970 -22 miles
0 10 20 30 40 50 MILES
0 10 20 30 40 50 KILOMETERS

EXPLANATION

— — MAJOR DRAINAGE DIVIDE

06 MISSOURI RIVER BASIN

09 GREEN RIVER BASIN

10 BEAR RIVER BASIN

13 SNAKE RIVER BASIN

▲2560 SURFACE-WATER STATION AND NUMBER

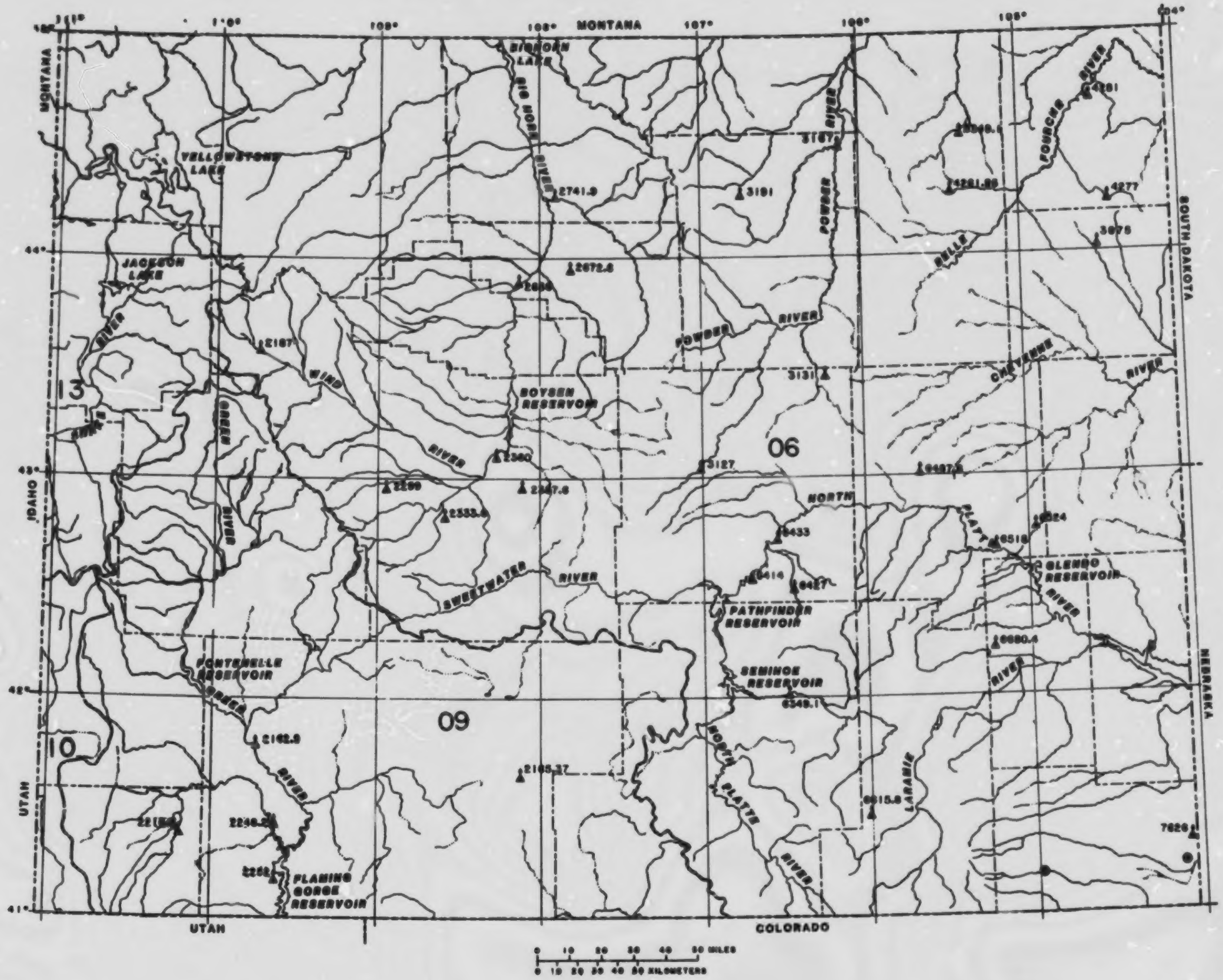
▼2590.5 WATER -QUALITY STATION AND NUMBER

◆2570 SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER

▲6355 STAGE AND/OR CONTENTS STATION AND NUMBER

Figure 1.--Map showing locations of lake- and stream-gaging stations and water-quality stations, 1984 water year.

2


MONTANA
BIGHORN LAKE
BIG HORN RIVER
YELLOWSTONE LAKE
JACKSON LAKE
POWDER RIVER
BELLE FOURCHE RIVER
SOUTH DAKOTA
CHEYENNE RIVER
BOYSEN RESERVOIR
WIND RIVER
GREEN RIVER
SNAKE RIVER
IDAHO
SWEETWATER RIVER
NORTH PLATTE RIVER
GLENDO RESERVOIR
PATHFINDER RESERVOIR
SEMINOE RESERVOIR
FONTENELLE RESERVOIR
FLAMING GORGE RESERVOIR
LARAMIE RIVER
NEBRASKA
UTAH
COLORADO
06
09
10
13
2741.9
3191
3167
3131
3127
2672.6
2656
2187
2360
2387.6
2290
2332.6
2162.6
2165.37
2216
2246.2
2262
6433
6414
6427
6349.1
6515.8
6518
6524
6497.5
6680.4
7626
4281
4261.66
4277
3876
0 10 20 30 40 50 MILES
0 10 20 30 40 50 KILOMETERS

EXPLANATION

—— MAJOR DRAINAGE DIVIDE
06 MISSOURI RIVER BASIN
09 GREEN RIVER BASIN
10 BEAR RIVER BASIN
13 SNAKE RIVER BASIN
2262▲ CREST-STAGE PARTIAL-RECORD STATION
● GROUND-WATER OBSERVATION WELL

Figure 2.--Map showing locations of crest-stage partial-record stations and ground-water observation wells, 1984 water year.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Wyoming State Engineer, George L. Christopulos

Wyoming Department of Agriculture, John Orton, Commissioner of Agriculture

Wyoming Highway Department, Leno H. Menghini, Superintendent and Chief Engineer

Wyoming Department of Environmental Quality, Robert E. Sundin, Director

Wyoming Department of Economic Planning and Development, Paul C. Schwieger, Chief of Water Development

Wyoming Water Development Commission, Michael K. Purcell, Administrator

City of Buffalo, Emil O. Hecht, Mayor

Uinta County, County Commissioners

Assistance in the form of funds and services was given by the Bureau of Land Management, U.S. Department of the Interior for 5 gaging stations, 3 water-quality stations, and 6 sediment stations; by the Bureau of Reclamation, U.S. Department of the Interior for 11 gaging stations, 2 water-quality stations, and 2 sediment stations; by the Bureau of Indian Affairs, U.S. Department of the Interior for 3 gaging stations and 2 water-quality stations; by the Corps of Engineers, U.S. Army for 2 gaging stations; and by the National Park Service, U.S. Department of the Interior for 1 gaging station, published in this report.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Hydrologic conditions in Wyoming during the 1984 water year were characterized by greater-than-normal (30-year average, 1951-80) precipitation and streamflow throughout the State. The most noteworthy hydrologic events occurred in south-central Wyoming where extreme flooding occurred in late May along the Little Snake and North Platte Rivers and their tributaries. Record or near record flows occurred in the North Platte River for the second consecutive year.

Precipitation

Precipitation for the year was greater than normal throughout the State; however, there was significant seasonal variation. Most areas received greater-than-normal precipitation during the fall and less-than-normal precipitation during the winter; however, as indicated in table 1, precipitation from October to March was greater than normal. Precipitation from April to June was less than normal for most drainages but was greater than normal from July to September. Divisional precipitation amounts and departures from normal for the major drainage basins (table 1) are published by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce in their monthly publication of climatological data. The precipitation stations are predominantly in the non-mountainous areas of the State and may not be indicative of winter precipitation in the mountains. The approximate precentage of normal precipitation that occurred in each of the major drainage basins is shown with streamflow comparisons of annual flow on the location map in figure 3.

Table 1.--Precipitation for selected periods of the 1984 water year and the departure from normal, in the major drainage basins.

Precipitation recording division	Precipitation, in inches					
	October to March		April to June		July to September	
	Total	Departure	Total	Departure	Total	Departure
Snake	14.26	2.22	6.45	0.81	5.91	2.08
Green/Bear	5.61	1.79	2.81	-.34	5.19	2.77
Bighorn	3.96	1.36	3.79	-.72	2.98	.52
Powder	5.70	1.58	7.66	1.06	3.08	-.28
Lower [North] Platte	5.35	1.78	6.00	-.28	5.38	1.61
Wind	3.56	.93	3.35	-1.45	3.36	-.75
Upper [North] Platte	6.04	1.58	3.36	-.75	4.99	1.98

The monthly summaries of mountain snowcourse data, published by the U.S. Soil Conservation Service (1983-84), did show trends similar to the precipitation data collected in the non-mountainous areas. Throughout the State, snowpack water content generally exceeded the 1961-80 normal water content. Early winter snowfall was deposited in greater-than-normal depths throughout the State, but was particularly extreme in areas along the Wyoming-Colorado border. At stations in these areas, snowpack water content was reported at 150 to 200 percent of normal on January 1, 1984. Although snowpack water content in May 1984 was measured at smaller percentages of normal than on January 1, the percentages remained greater than normal.

Streamflow

Streamflow was greater than normal throughout the State as determined by discharge records from streamflow-gaging stations used to typify flow in the major drainage basins. The location map in figure 3 provides a graphical comparison between the 1984 water year annual mean discharge and the median annual and the maximum annual mean discharges for the period of record. In addition, the bar graphs illustrate the 1984 water year monthly mean and annual streamflow compared to the median and maximum monthly and annual flows for the period of record.

With the exception of station 06285100 Shoshone River near Lovell, streamflow at all the selected stations remained greater than median monthly flows throughout most of the year. Streamflow at the Lovell station was less than the median annual and less than most median monthly flows. Streamflow at station 06630000 North Platte River above Seminoe Reservoir, near Sinclair and at station 06674500 North Platte River at Wyoming-Nebraska State line established maximums of record for annual mean discharge for the second consecutive year.

Floods

Major flooding occurred in south-central Wyoming during snowmelt runoff in late May. The principal streams affected were the North Platte and Little Snake Rivers, and their tributaries. The peak discharge at station 06620000 North Platte River near Northgate, Colorado, (see fig. 3), was about the previously recorded maximum, and the 1984 peak at station 06630000 North Platte River above Seminoe Reservoir established a new maximum for the period of record. A streamflow-gaging station on a stream tributary to the North Platte River, station 06628900 Pass Creek near Elk Mountain, recorded a peak discharge that was about four times the previous maximum of record. Flooding also occurred along the Little Snake River about the same time and caused severe problems at Baggs, Wyoming. The streamflow-gaging station just upstream from Baggs, station 09257000 Little Snake River near Dixon, also recorded a peak discharge of record. Part of the peak discharge (14,700 cubic feet per second) resulted from failure of the dam at Grieve Reservoir, which United Press International reported as having contributed "an additional 400 acre-feet of water." The reservoir is located on East Sweetwater Gulch, which is tributary to the Little Snake River about 20 miles upstream from the gaging station near Dixon. Additional descriptive statistics for these flood peaks are given in table 2.

Table 2.--Peak discharge for the 1984 water year and for the period of record at selected stations in south-central Wyoming.

Station number	Station name	Drainage area (square miles)	Peak discharge, 1984 water year			Peak discharge, period of record	
			Date	Cubic feet per	Recurrence in-	Date	Cubic feet per
06620000	North Platte River near Northgate, Colo.	1,431	05/17	6,460	22	06/11/23	6,720
06628900	Pass Creek near Elk Mountain, Wyo.	91.5	05/12	4,660	(1)	05/09/73	1,180
06630000	North Platte River above Seminoe Reservoir, near Sinclair, Wyo.	4,175	05/26	15,000	(2)	06/15/57	14,500
09257000	Little Snake River near Dixon, Wyo.	988	05/16	14,700	(1)	05/25/20	9,600

1 - Exceeds 100-year recurrence interval.
2 - Exceeds 50-year recurrence interval.

Peak discharges of streams in other areas of the State were less noteworthy. Peak discharges of streams with headwaters in the Bighorn Mountains, and in the Wasatch Mountains of northeast Utah, had recurrence intervals that generally were less than 10 years. Recurrence intervals of annual peak discharges of streams in the other areas of the State predominantly were less than 2 years.

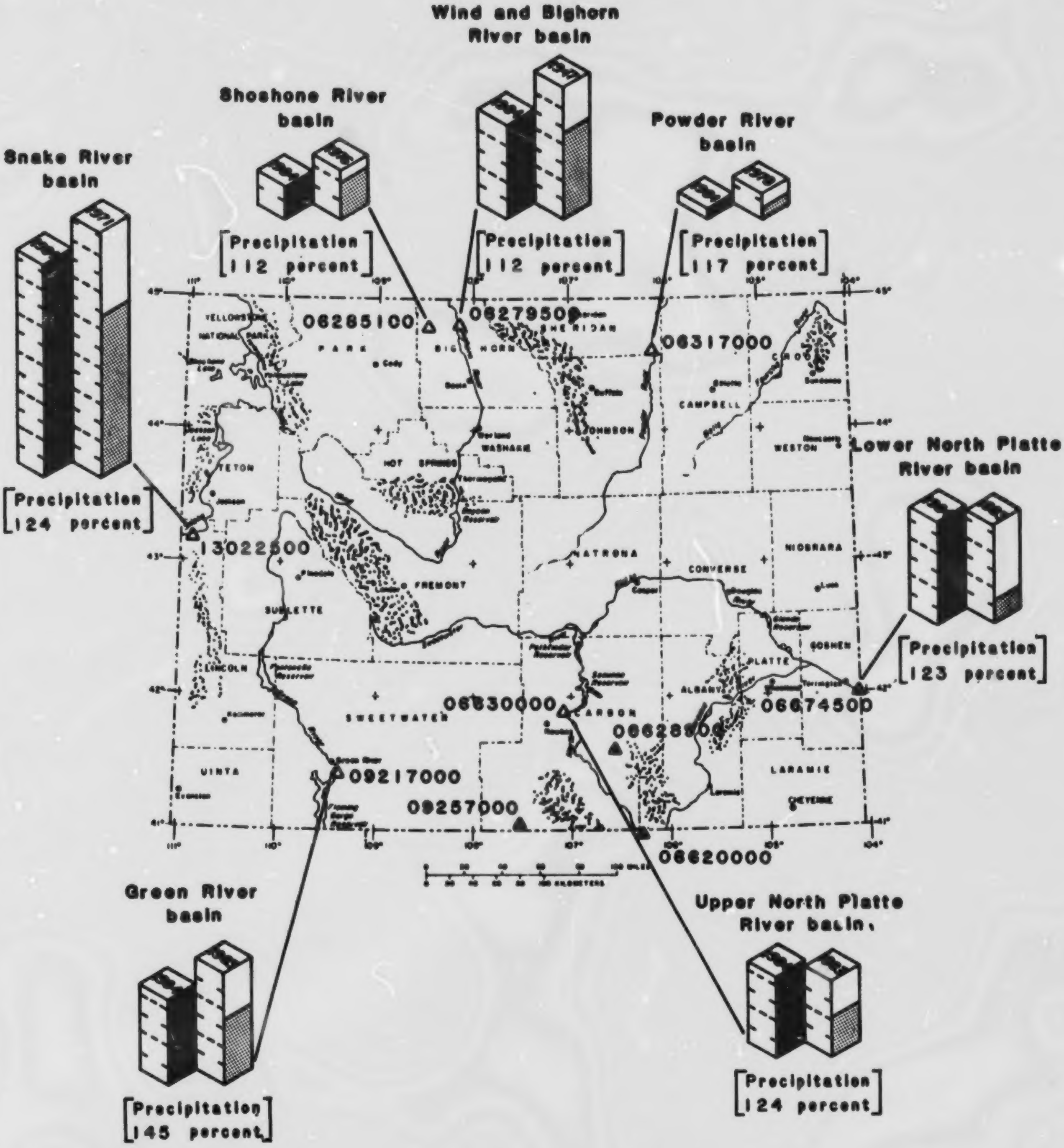

Wind and Bighorn River basin
[Precipitation 112 percent]
Shoshone River basin
[Precipitation 112 percent]
Powder River basin
[Precipitation 117 percent]
Snake River basin
[Precipitation 124 percent]
Lower North Platte River basin
[Precipitation 123 percent]
Green River basin
[Precipitation 145 percent]
Upper North Platte River basin
[Precipitation 124 percent]
06285100
06279500
06317000
13022500
06630000
06628900
06674500
09217000
09257000
06620000
YELLOWSTONE NATIONAL PARK
PARK
BIG HORN
SHERIDAN
CROOK
CAMPBELL
JOHNSON
WASHAKIE
HOT SPRINGS
TETON
WESTON
NATRONA
NIOBRARA
CONVERSE
FREMONT
SUBLETTE
LINCOLN
GOSHEN
PLATTE
ALBANY
SWEETWATER
CARBON
LARAMIE
CHEYENNE
UINTA
111°
110°
109°
108°
107°
106°
105°
104°
45°
44°
43°
42°
41°

Figure 3.--Monthly and annual mean discharge of major rivers in Wyoming for the 1984 water year, monthly and annual maximum and median discharge for period of record, and percentage of normal precipitation.

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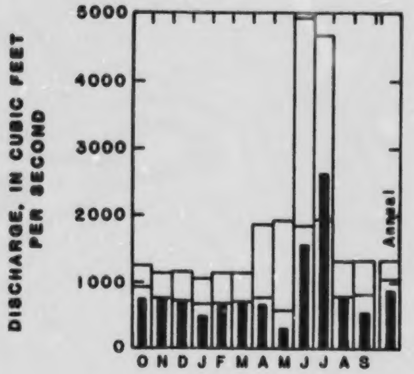
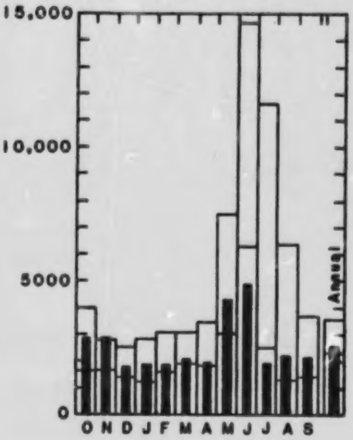
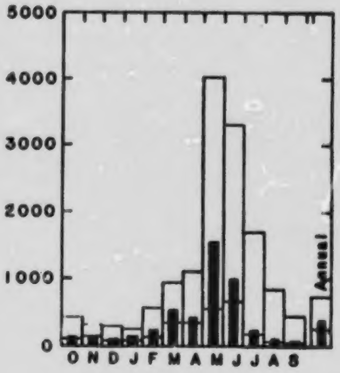


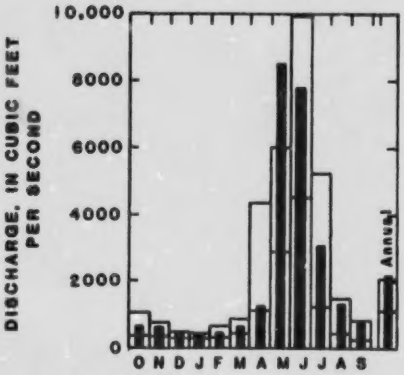
06285100 Shoshone River near Lovell, 1967-83



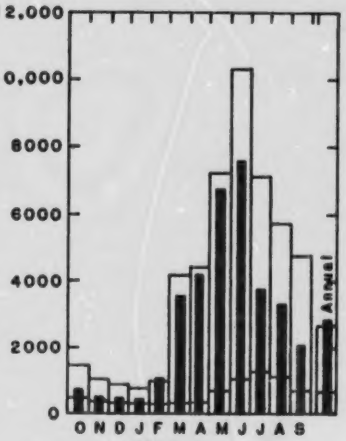
06279500 Bighorn River at Kane, 1930-83



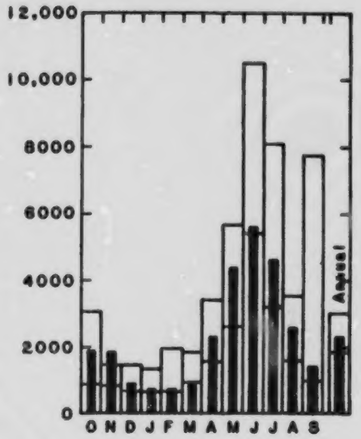
06317000 Powder River at Arvada, 1931-83



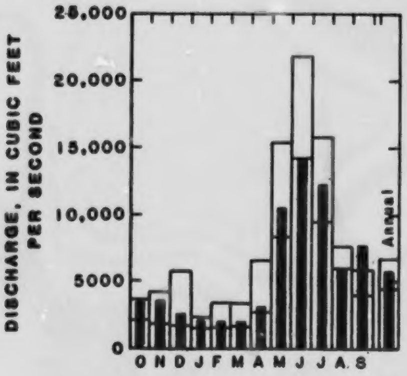
06630000 North Platte River above Seminoe Reservoir, near Sinclair, 1939-83



06674500 North Platte River at Wyoming-Nebraska State line, 1929-83



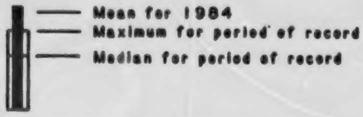
09217000 Green River near Green River, 1952-83



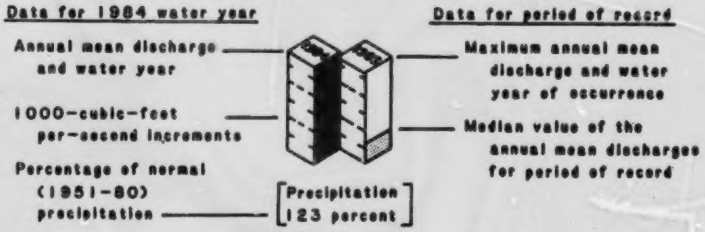
13022500 Snake River above Reservoir near Alpine, 1954-83

EXPLANATION

MONTHLY OR ANNUAL DISCHARGE


Mean for 1984
Maximum for period of record
Median for period of record

COMPARISON OF ANNUAL MEAN DISCHARGE


Data for 1984 water year
Data for period of record
Annual mean discharge and water year
1000-cubic-feet per-second increments
Percentage of normal (1951-80) precipitation
Precipitation 123 percent
Maximum annual mean discharge and water year of occurrence
Median value of the annual mean discharges for period of record

STREAMFLOW STATION

06674500 △ Gaging station selected to typify drainage basin and number

▲ 06620000 Gaging station and number

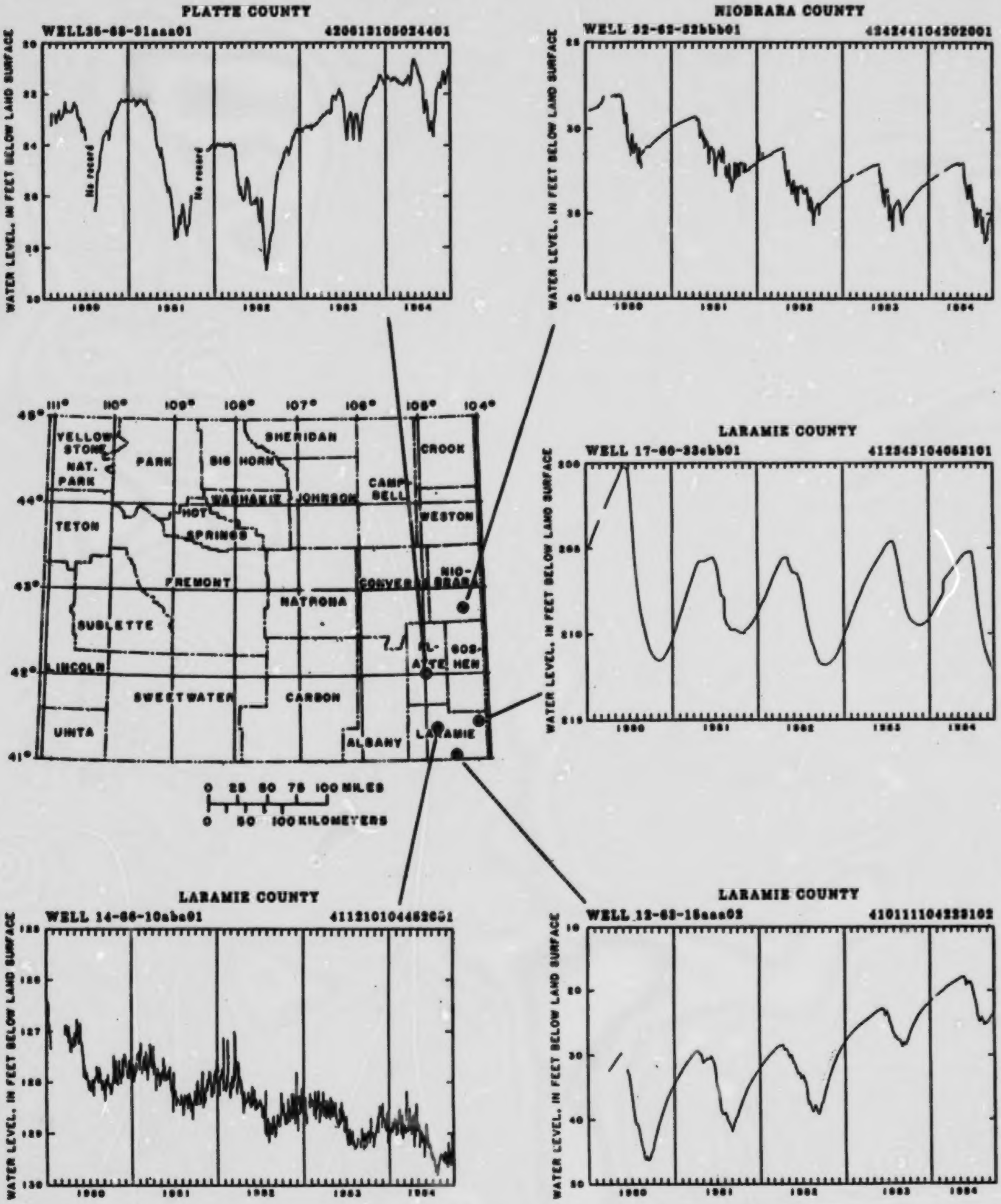


Figure 4.--Water-level fluctuations from January 1980 to September 1984 in observation wells located in areas of extensive ground-water withdrawals.

Chemical Quality of Streamflow

Specific-conductance records for selected stations in six major drainage basins were statistically analyzed to determine if significant changes in quality of water occurred during the 1984 water year. The previous 10 years of data were used for comparison purposes, and only data obtained from periodic sampling (about every 6 weeks) are used in the analysis.

Specific conductance can be used to approximate the dissolved-solids concentration in water because it varies directly with concentration and species of ions in water. A common statistical technique, the t-test, was used to determine whether significant differences exist between the mean of the specific-conductance values measured during the 1984 water year and the mean of the specific-conductance values measured during water years 1974-83. A 95-percent level of significance (alpha = 0.05) was used for each t-test, and the assumption was made that the data were normally distributed. The null hypothesis tested was that the mean specific conductance is equal for the two periods.

The procedure requires that a "t" statistic be computed and compared with a value taken from the Student's "t" table. If the absolute value of the commputed t (t_c) is less than the table t value (t_{tab}), the null hypothesis that the means are equal is accepted. If the absolute value of t_c is greater than t_{tab}, the null hypothesis is rejected and the conclusion can be made that the means are not equal. In terms of specific conductance, rejection of the null hypothesis would indicate the chemical quality of water at a site during the 1984 water year was significantly different from the previous 10 water years.

Results of the t-tests for the six stations are listed in table 3. Since the null hypothesis is accepted for all stations, the conclusion is made that the specific conductances and consequently dissolved-solids concentrations for the 1984 water year were not significantly different from the means for the previous 10 water years.

Table 3.--Results of t-tests comparing specific-conductance means for the 1984 water year with means for 1974-83 at selected water-quality sampling stations

[Specific conductance, in microsiemens per centimeter at 25° Celsius]

	Specific conductance 1984 water year			Specific conductance 1974-83 water years			t-test		
Drainage basin and station number	Number of values	Mean	Standard deviation	Number of values	Mean	Standard deviation	t_{tab}	t_c	Null hypothesis
Bighorn River 06279500	10	861	196	113	936	210	2.2	-1.2	Accepted
Shoshone River 06285100	4	656	239	111	857	261	3.3	-1.7	Accepted
Powder River 06317000	8	2,445	877	95	2,926	880	2.2	-1.5	Accepted
North Platte River 06630000	11	447	152	82	431	127	2.2	.3	Accepted
Green River 09217000	10	576	214	171	619	172	2.3	-.6	Accepted
Snake River 13022500	8	315	56	162	327	68	2.3	-.6	Accepted

Ground-water Levels

Ground-water levels, as indicated by a network of 75 observation wells, showed an overall rise in water levels compared to the previous water year. However, there were local areas of water-level declines. Most observation wells are in areas of extensive ground-water withdrawal--principally in southeast Wyoming. The primary areas are in Goshen, Laramie, and Niobrara Counties where irrigation water is pumped from the High Plains aquifer and in Platte County where water is pumped from alluvium.

Changes in water levels in eastern Laramie County range from a 0.4 ft decline to a 6.4 ft rise compared to the 1983 water year; however, in Platte County and western Laramie County, smaller rises were predominant (a maximum 1.8 ft rise). Measurements at most observation wells in Goshen and Niobrara Counties indicated declining water levels (generally less than 2 ft) with few showing a rise (generally less than 2 ft). Hydrographs for respresentative observation wells in southeastern Wyoming are shown in figure 4. Elsewhere in the State, only normal seasonal fluctuations of water levels--predominently less than 2 ft--were measured.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters(L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

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Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of matamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.........	0.00024 - 0.004	Sedimentation.
Silt.........	.004 - .062	Sedimentation.
Sand.........	.062 - 2.0	Sedimentation or sieve.
Gravel.......	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respecitively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2.\text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3.\text{time})$] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactivity carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2.\text{time})$ for periphyton and macrophytes and $\text{mg O}_2/(\text{m}^3.\text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 m membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 m membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable the ammount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06630000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "630000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 5 below.

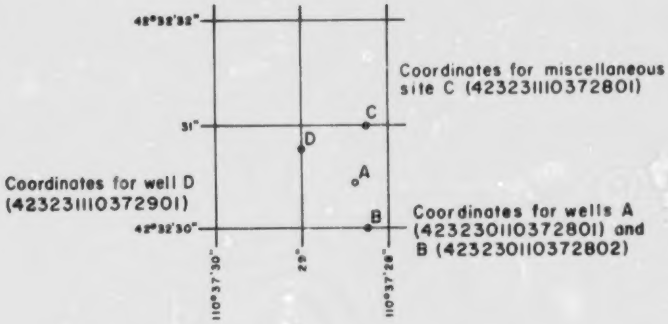
42°32'32"
31"
42°32'30"
110°37'30"
29"
110°37'28"
Coordinates for miscellaneous site C (423231110372801)
C
D
A
B
Coordinates for well D (423231110372901)
Coordinates for wells A (423230110372801) and B (423230110372802)

Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

In order to compare data for wells in other publications, such as the county ground-water studies, the wells in this report are also numbered according to a system based on the location in the public land classification of the U.S. Bureau of Land Management. The system is illustrated in figure 6. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters A, B, C, and D designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10-acre or 4-hectare tract). For example, well 26N-063W-32CDA is in the NE¼SE¼SW¼ sec.32, T.26 N., R.63 W. Consecutive terminal numbers are added if more than one well is recorded within a 10-acre tract.

For a small irregularly-shaped area in west central Wyoming, the well numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counter-clockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given in the preceding paragraph.

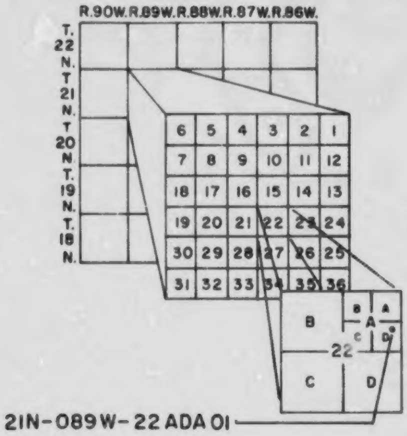

Figure 6.--System for numbering wells and miscellaneous sites (township and range).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum, and condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS".

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on the following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of quantities of suspended sediment, records for the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figures 1 and 2.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 or land-surface datum (lsd). National Geodetic Vertical Datum of 1929 is explained in the Definition of Terms paragraph. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide the more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey and its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquires about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°37'13", long 110°51'44", Yellowstone National Park, Hydrologic Unit 10020007, on right bank 1.6 mi south of Madison Junction, 12 mi east of West Yellowstone, and at mile 1.8.

DRAINAGE AREA.--282 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- October 1983 to September 1984.

GAGE.--Water-stage recorder. Altitude of gage is 7,050 ft, from topographic map.

REMARKS.--Records good. No regulation or diversions above station. Water-quality records for this station are published in the report "Water Resources Data for Montana, Water Year 1984."

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 913 ft³/s, May 31, gage height, 4.57 ft; minimum, 261 ft³/s, Mar. 5, gage height, 3.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	500	331	320	303	287	282	279	324	770	395	364	327
2	480	343	320	301	283	284	279	338	603	379	355	315
3	440	359	320	304	285	281	275	328	571	375	349	312
4	380	339	320	306	283	276	280	305	549	365	337	311
5	360	375	310	307	283	273	287	330	571	359	339	312
6	350	372	310	307	282	278	297	321	536	354	339	356
7	340	516	310	308	283	279	292	314	631	353	327	370
8	340	405	310	307	283	281	289	312	599	373	324	334
9	350	353	320	305	283	285	289	330	523	354	320	339
10	420	352	330	300	294	284	288	360	500	341	319	324
11	370	370	330	302	285	288	289	357	558	335	318	320
12	354	361	330	300	286	286	278	432	518	331	320	314
13	342	354	330	296	291	284	278	506	483	328	321	310
14	355	343	330	293	298	300	278	616	503	324	323	309
15	350	341	330	287	284	295	304	681	506	320	327	312
16	336	338	330	293	291	297	335	719	513	320	380	312
17	330	347	320	283	290	298	352	571	531	318	351	308
18	336	343	310	275	284	295	362	543	537	318	332	307
19	329	332	320	279	282	290	365	580	501	323	329	308
20	330	339	330	281	279	293	392	751	521	329	384	310
21	329	335	310	290	284	297	338	780	511	355	333	423
22	326	318	298	293	286	293	328	627	504	402	321	368
23	345	318	299	288	280	287	358	659	480	412	323	351
24	360	327	295	291	283	293	329	756	469	360	331	342
25	332	336	314	295	285	291	326	630	476	339	334	325
26	326	330	319	294	278	293	310	672	482	345	335	325
27	323	315	311	291	276	282	300	640	464	339	322	327
28	320	320	294	291	280	279	298	567	444	347	313	320
29	321	325	297	292	279	285	308	612	430	350	309	317
30	320	310	309	289	---	280	308	728	418	341	311	319
31	329	---	307	287	---	281	---	823	---	340	327	---
TOTAL	11023	10447	9783	9138	8247	8890	9291	16512	15702	10824	10317	9827
MEAN	356	348	316	295	284	287	310	533	523	349	333	328
MAX	500	516	330	308	298	300	392	823	770	412	384	423
MIN	320	310	294	275	276	273	275	305	418	318	309	307
AC-FT	21860	20720	19400	18130	16360	17630	18430	32750	31140	21470	20460	19490

WTR YR 1984 TOTAL 130001 MEAN 355 MAX 823 MIN 273 AC-FT 257900

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT

LOCATION (REVISED).--Lat 44°38'58", long 110°47'02", Yellowstone National Park, Hydrologic Unit 10020007, on right bank 0.6 mi downstream from Canyon Creek, 4.0 mi east of Madison Junction, 16.7 mi east of West Yellowstone, and at mile 5.6.

DRAINAGE AREA (REVISED).--118 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1916 (incomplete record most years), October 1983 to September 1984.

GAGE.--Water-stage recorder. Altitude of gage is 6,940 ft, from topographic map. Nonrecording gage at site 0.1 mi downstream at different datum, 1913-1916.

REMARKS.--Records fair. No regulation or diversions upstream of station. Water-quality records for this station are published in the report "Water Resources Data for Montana, Water Year 1984."

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 863 ft^3/s, May 15, 1984, gage height, 4.15 ft; minimum observed, 62 ft^3/s, Mar. 10-17, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 863 ft^3/s, May 15, gage height, 4.15 ft; minimum, 70 ft^3/s, Mar. 5, gage height, 2.41 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	106	104	96	81	79	78	107	362	145	142	114
2	150	111	105	96	79	80	77	111	307	144	135	109
3	130	119	105	98	78	81	76	111	276	143	130	107
4	110	111	108	98	79	78	77	105	281	145	129	113
5	105	120	100	97	78	75	78	112	304	141	126	113
6	100	122	103	98	78	79	78	107	276	140	122	124
7	98	142	103	97	79	78	77	103	308	147	117	122
8	95	122	108	96	79	76	77	105	288	165	116	116
9	140	109	107	94	78	79	79	119	249	164	114	120
10	140	109	109	92	83	79	80	132	233	157	114	117
11	125	116	107	96	79	80	82	144	268	151	115	114
12	107	114	110	94	80	77	79	207	259	144	114	106
13	105	115	106	92	82	77	79	306	220	135	115	106
14	111	111	109	89	87	80	79	489	209	134	116	105
15	115	108	108	89	81	78	85	703	195	135	119	104
16	112	108	107	89	85	80	95	568	191	135	127	104
17	107	110	106	88	86	80	107	386	196	134	121	103
18	108	109	105	84	81	79	119	364	191	134	119	102
19	106	107	106	82	80	79	124	364	184	139	120	104
20	107	111	104	80	80	78	123	449	182	136	133	105
21	105	108	102	80	81	80	115	615	179	158	120	153
22	105	102	100	80	82	82	119	390	175	202	117	140
23	108	102	98	80	81	82	134	355	169	209	114	131
24	112	107	98	81	82	84	125	372	164	185	116	126
25	105	111	100	83	84	84	121	343	161	148	116	117
26	105	107	105	84	82	85	112	371	156	145	118	118
27	103	104	101	82	79	82	104	347	151	133	111	117
28	100	107	100	82	80	79	102	276	149	135	111	110
29	99	101	100	84	80	81	106	291	148	139	108	102
30	100	98	100	82	---	78	101	322	147	130	107	101
31	106	---	98	82	---	77	---	350	---	125	116	---
TOTAL	3474	3327	3222	2745	2344	2466	2888	9124	6578	4577	3698	3423
MEAN	112	111	104	88.5	80.8	79.5	96.3	294	219	148	119	114
MAX	155	142	110	98	87	85	134	703	362	209	142	153
MIN	95	98	98	80	78	75	76	103	147	125	107	101
AC-FT	6890	6600	6390	5440	4650	4890	5730	18100	13050	9080	7330	6790

WTR YR 1984 TOTAL 47866 MEAN 131 MAX 703 MIN 75 AC-FT 94940

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT

LOCATION (REVISED).--Lat 44°39'25", long 111°04'03", in SW¼ sec.36, T.13 S., R.5 E., Gallatin County, Hydrologic Unit 10020007, Yellowstone National Park, on left bank 0.7 mi downstream from Montana-Wyoming State line, 1.5 mi east of West Yellowstone, 16.4 mi downstream from Gibbon River, and at mile 132.7.

DRAINAGE AREA.--420 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1984. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 6,650 ft, from topographic map. Prior to Oct. 20, 1918, nonrecording gage, and Oct. 20, 1918 to June 29, 1930, nonrecording gage or water-stage recorder at sites 2.5 mi upstream at different datums. Supplementary nonrecording gage at site 0.3 mi downstream at different datum used at times during 1927-30.

REMARKS.--Records good. No regulation of diversions above station. Water-quality records for this station are published in the report "Water Resources Data for Montana, Water Year 1984."

AVERAGE DISCHARGE.--59 years (1913-17, 1918-21, 1922-73, 1984), 488 ft³/s, 15.78 in/yr, 353,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft³/s, May 24, 1956, gage height, 3.44 ft, maximum gage height, about 10.0 ft, Jan. 8, 1937 (ice jam); minimum discharge, 100 ft³/s, Feb. 7, 1933, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s, revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 24	1330	ice jam	*5.26	May 27	0400	1,350	2.90
May 16	1100	1,470	3.00	May 31	1200	1,400	2.94
May 21	1000	*1,560	3.07				

Minimum discharge, 313 ft³/s, Jan. 18, gage height, 1.82 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST AND SEPTEMBER 1983
MEAN VALUES

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.		Aug.	Sept.
1	475	422	9	449	457	17	455	410	25	445	421	Total	14222	13207
2	512	430	10	454	434	18	458	412	26	437	419	Mean	459	440
3	475	434	11	456	423	19	460	439	27	433	440	Max	530	627
4	461	427	12	448	421	20	526	433	28	429	564	Min	426	410
5	482	421	13	437	417	21	530	446	29	426	498	Ac-ft	28210	26200
6	457	415	14	434	418	22	490	440	30	429	627			
7	452	416	15	437	418	23	470	433	31	429	---			
8	454	431	16	464	414	24	458	427						

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	701	456	446	441	420	407	401	455	1320	607	560	498
2	676	463	448	436	412	412	398	464	1090	583	561	476
3	603	505	447	442	414	411	392	468	990	572	534	468
4	524	472	450	444	413	402	396	449	977	557	525	467
5	491	496	440	444	411	391	408	466	986	545	515	465
6	471	531	446	444	411	403	414	463	943	530	515	497
7	464	649	449	444	412	401	418	446	1030	533	497	566
8	454	605	452	444	410	402	413	455	1050	581	487	497
9	487	495	452	439	409	405	416	462	917	559	489	505
10	659	482	467	431	427	405	415	509	855	528	484	485
11	591	505	452	436	418	411	419	512	954	509	480	476
12	503	506	473	433	417	410	406	597	928	496	484	467
13	480	498	454	429	422	406	407	792	833	489	480	460
14	496	475	456	421	439	423	400	999	838	483	484	454
15	509	466	456	399	418	414	420	1200	824	479	480	460
16	483	464	445	395	425	419	453	1340	829	484	547	460
17	468	472	443	385	430	415	483	1090	859	484	536	454
18	472	472	385	360	417	419	503	968	861	482	500	453
19	468	460	420	390	406	412	512	973	825	483	497	453
20	468	471	410	410	405	413	564	1180	808	486	570	455
21	461	465	400	420	411	414	497	1420	819	526	511	569
22	454	443	390	425	417	413	474	1140	793	616	493	593
23	467	437	380	428	409	410	510	1110	756	691	490	529
24	512	449	370	427	412	416	491	1240	725	601	507	524
25	467	467	420	431	417	415	478	1130	718	539	510	495
26	453	454	450	432	408	414	460	1120	721	537	518	493
27	447	441	415	423	399	408	442	1210	701	529	491	496
28	443	448	429	426	408	401	438	986	677	538	476	482
29	440	446	453	429	408	409	453	1020	654	544	468	475
30	437	411	455	423	---	402	438	1150	631	528	466	476
31	444	---	450	419	---	402	---	1300	---	506	483	---
TOTAL	15493	14404	13503	13150	12025	12685	13319	27114	25912	16625	15638	14648
MEAN	500	480	436	424	415	409	444	875	864	536	504	488
MAX	701	649	473	444	439	423	564	1420	1320	691	570	593
MIN	437	411	370	360	399	391	392	446	631	479	466	453
AC-FT	30730	28570	26780	26080	23850	25160	26420	53780	51400	32980	31020	29050

WTR YR 1984 TOTAL 194516 MEAN 531 MAX 1420 MIN 360 AC-FT 385800

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT

LOCATION.--Lat 45°06'43", long 110°47'37", in NW¼SE¼NW¼ sec.30, T.8 S., R.8 E., Park County, Hydrologic Unit 10070002, on left bank 20 ft downstream from highway bridge at Corwin Springs, 1.3 mi upstream from Mol Herron Creek, 7 mi northwest of Gardiner, and at mile 549.7.

DRAINAGE AREA.--2,623 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1889 to November 1893 (published as "at Horr"), September 1910 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912. WSP 1509: 1889-94, 1911, 1913, 1916-18, 1920-21, 1925, 1927. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,079.09 ft, National Geodetic Vertical Datum of 1929. Aug. 12, 1889, to Nov. 4, 1893, nonrecording gages at site 2 mi upstream at different datums. Sept. 2, 1910, to Apr. 19, 1935, nonrecording gages on bridge at present datum.

REMARKS.--Records good. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres of which 40 acres are below station. Water-quality records for this station are published in the report "Water Resources Data for Montana, Water Year 1984."

AVERAGE DISCHARGE.--78 years (1890-93, 1911-84), 3,122 ft³/s, 16.16 in/yr, 2,262,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,000 ft³/s, June 14, 15, 1918, gage height, 11.5 ft, from rating curve extended above 18,000 ft³/s; minimum observed, 389 ft³/s, Feb. 23, Mar. 5, 9, 1937, gage height, 0.05 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	0415	12,200	6.53	June 1	0245	*16,400	*7.66
May 21	0430	12,600	6.66	June 30	0145	15,800	7.51

Minimum daily discharge, 939 ft³/s, Mar. 28, gage height, 1.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2880	1990	1700	1300	1160	1120	1100	1480	14500	12900	5620	2880
2	2850	1980	1730	1350	1150	1140	1060	1470	11600	11800	5400	2740
3	2650	2020	1700	1360	1160	1140	1040	1490	10600	11300	5260	2650
4	2440	1990	1690	1410	1150	1090	1080	1440	10500	10800	5070	2580
5	2330	2030	1520	1400	1140	1020	1100	1480	10100	10600	4970	2510
6	2320	2130	1650	1400	1130	1050	1120	1470	9640	10200	4850	2610
7	2250	2480	1580	1380	1150	1090	1140	1400	9180	10100	4710	2760
8	2190	2460	1690	1390	1150	1120	1130	1420	8940	10300	4510	2570
9	2200	2100	1640	1370	1120	1130	1140	1540	8480	10000	4390	2560
10	2760	2180	1650	1280	1150	1120	1140	1750	8040	9250	4250	2510
11	2560	2170	1630	1300	1150	1120	1160	1820	7980	8670	4140	2390
12	2370	2140	1640	1320	1160	1120	1060	2120	7960	8290	4060	2360
13	2290	2120	1540	1290	1170	1100	1110	3700	8040	7970	3950	2290
14	2300	2070	1600	1200	1190	1140	1090	6770	9240	7630	3890	2220
15	2370	2020	1540	1150	1140	1150	1120	10400	11100	7310	3780	2180
16	2290	1980	1500	1100	1150	1140	1250	10800	12800	7020	3810	2160
17	2230	2000	1450	1050	1180	1120	1510	7150	12700	6750	3850	2120
18	2200	1970	1400	1000	1130	1110	1690	6320	13000	6540	3680	2080
19	2130	1900	1350	1050	1080	1100	1880	6470	12500	6410	3610	2050
20	2130	1910	1250	1100	1100	1120	1810	9050	13400	6340	3790	2030
21	2120	1880	1150	1100	1110	1140	1700	11300	13600	6440	3590	2220
22	2110	1670	1100	1150	1140	1120	1730	8200	13100	6760	3430	2310
23	2160	1630	1050	1150	1120	1090	1900	7990	11800	7160	3340	2200
24	2240	1750	1000	1210	1110	1120	1810	9840	12300	6780	3330	2180
25	2130	1820	1050	1210	1130	1110	1760	8110	13300	6280	3250	2090
26	2080	1760	1150	1200	1120	1110	1600	7290	13700	6220	3380	2090
27	2040	1690	1200	1190	1080	1070	1430	7330	14100	6170	3160	2110
28	2010	1750	1200	1200	1090	1060	1440	6740	14000	5980	3040	2030
29	1990	1620	1250	1200	1100	1130	1510	7820	14100	5880	2950	1980
30	1960	1570	1250	1180	---	1080	1410	11200	14400	5700	2840	1990
31	1970	---	1300	1160	---	1090	---	15300	---	5440	2830	---
TOTAL	70550	58780	44150	38150	32910	34360	41020	180660	344700	248990	122730	69450
MEAN	2276	1959	1424	1231	1135	1108	1367	5828	11490	8032	3959	2315
MAX	2880	2480	1730	1410	1190	1150	1900	15300	14500	12900	5620	2880
MIN	1960	1570	1000	1000	1080	1020	1040	1400	7960	5440	2830	1980
AC-FT	139900	116600	87570	75670	65280	68150	81360	358300	683700	493900	243400	137800

CAL YR 1983 TOTAL 1131224 MEAN 3099 MAX 14700 MIN 893 AC-FT 2244000
WTR YR 1984 TOTAL 1286450 MEAN 3515 MAX 15300 MIN 1000 AC-FT 2552000

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT

LOCATION.--Lat 45°00'37", long 109°03'53", in NW¼SW¼NW¼ sec.32, T.9 S., R.22 E., Carbon County, Hydrologic Unit 10070006, on left bank 0.2 mi upstream from county road bridge and Big Sand Coulee, 0.8 mi north of Wyoming-Montana State line, 9.5 mi southwest of Belfry, and at mile 71.2.

DRAINAGE AREA.--1,154 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1921 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Clarks Fork at Chance prior to October 1956 and as Clarks Fork Yellowstone River at Chance October 1956 to September 1968.

REVISED RECORDS.--WSP 1309: 1922(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,986.24 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 15, 1934, nonrecording gage, and Nov. 15, 1934, to July 26, 1951, water-stage recorder at bridge 0.4 mi downstream at different datum. July 27, 1951, to Sept. 30, 1953, water-stage recorder at present site at datum 0.98 ft higher.

REMARKS.--Records good except those for May 14 to June 30, which are fair, and those for Dec. 15 to Jan. 5, Jan. 14-24, which are poor. Diversions for irrigation of about 11,100 acres above station.

AVERAGE DISCHARGE.--63 years, 952 ft^3/s, 689,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft^3/s, June 9, 1981, gage height, 9.97 ft; minimum observed, 32 ft^3/s, Apr. 26, 1961, result of discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 1	0400	6,480	6.24	June 30	0400	*6,750	*6.37

Minimum discharge, 148 ft^3/s, Sept. 21, gage height, 0.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572	302	263	330	259	234	218	318	5740	5690	1400	314
2	626	302	356	350	252	241	218	348	4340	4670	1320	270
3	675	302	379	450	248	241	215	361	3630	4310	1200	252
4	615	344	384	600	256	231	212	344	3050	3920	1110	234
5	561	401	348	660	248	215	222	331	2610	3900	1020	218
6	530	427	299	568	248	231	234	335	2430	3920	933	209
7	494	463	344	337	248	241	245	318	2160	3810	893	256
8	489	559	352	264	252	228	248	314	1930	4000	810	259
9	463	480	361	256	248	241	248	344	1740	3730	740	263
10	554	448	402	278	245	231	241	467	1600	3110	677	274
11	560	463	398	274	245	234	231	479	1500	2650	621	241
12	525	463	393	278	234	238	222	510	1440	2450	717	222
13	494	453	375	274	252	234	215	1030	1490	2370	649	209
14	468	432	370	250	259	238	225	1750	2000	2280	546	193
15	463	412	330	240	238	241	222	2960	3190	2160	535	196
16	432	427	250	220	218	234	273	3300	4300	2040	520	186
17	407	427	220	210	248	231	420	2640	4420	1910	535	177
18	393	427	300	210	238	231	504	1650	4420	1790	479	168
19	384	417	250	220	222	225	535	1470	4180	1670	448	162
20	348	393	200	220	228	231	510	2730	4230	1760	463	154
21	339	412	190	230	248	238	423	4210	4830	1780	448	157
22	331	388	170	250	238	234	362	3040	5080	2060	388	186
23	331	327	170	270	228	234	407	2310	4290	2500	357	199
24	361	357	160	290	218	234	393	3250	4230	2630	335	222
25	361	416	170	307	241	245	352	2760	4980	2180	322	238
26	361	412	230	282	231	234	370	2280	5420	2010	397	231
27	352	365	300	267	231	234	331	2120	5610	1860	349	256
28	339	365	280	278	222	225	326	1780	5840	1770	310	278
29	331	361	240	270	231	218	322	1910	5940	1700	290	282
30	318	271	250	259	---	222	318	3090	6340	1640	270	274
31	302	---	300	259	---	218	---	5270	---	1480	267	---
TOTAL	13779	12016	9034	9451	6974	7207	9262	54019	112960	83750	19349	6780
MEAN	444	401	291	305	240	232	309	1743	3765	2702	624	226
MAX	675	559	402	660	259	245	535	5270	6340	5690	1400	314
MIN	302	271	160	210	218	215	212	314	1440	1480	267	154
AC-FT	27330	23830	17920	18750	13830	14300	18370	107100	224100	166100	38380	13450

CAL YR 1983 TOTAL 305867 MEAN 838 MAX 6120 MIN 145 AC-FT 606700
WTR YR 1984 TOTAL 344581 MEAN 941 MAX 6340 MIN 154 AC-FT 683500

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 0.2 mi downstream from discharge station, just upstream from Sand Coulee, and at mile 71.0.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT											
14...	0905	463	239	--	8.5	--	--	--	--	--	--
NOV											
29...	1030	371	307	8.1	.5	--	--	140	39	11	9.6
JAN											
10...	1020	276	348	8.0	.5	12.1	97	160	44	11	14
MAR											
07...	1000	228	372	--	4.0	--	--	--	--	--	--
APR											
10...	1015	239	328	8.1	10.0	9.6	95	160	42	13	14
MAY											
14...	1200	2070	163	--	12.0	--	--	--	--	--	--
16...	1100	3620	130	7.9	10.0	9.1	92	--	--	--	--
JUN											
21...	1135	4780	85	8.1	12.5	9.0	98	38	11	2.5	3.3
JUL											
12...	1130	2590	95	7.7	15.0	6.7	78	45	14	2.5	5.0
AUG											
14...	0950	553	194	7.9	16.0	8.4	98	88	24	6.9	6.7

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT										
14...	--	--	--	--	--	--	--	--	--	--
NOV										
29...	.4	1.0	39	2.8	.10	9.7	180	.25	--	.30
JAN										
10...	.5	1.7	50	1.6	.30	9.9	220	.29	--	.30
MAR										
07...	--	--	--	--	--	--	--	--	--	--
APR										
10...	.5	1.0	61	1.4	.20	9.5	220	.30	--	.00
MAY										
14...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
JUN										
21...	.2	.40	7.2	.80	.10	7.4	59	.08	<.10	--
JUL										
12...	.3	.50	5.9	.80	.00	6.5	63	.09	--	.00
AUG										
14...	.3	1.0	19	1.0	.10	8.3	120	.16	.30	.30

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT										
14...	--	--	--	--	--	--	--	--	--	--
NOV										
29...	--	--	--	--	.010	--	--	--	--	--
JAN										
10...	--	--	--	--	.030	--	--	34	25	92
MAR										
07...	--	--	--	--	--	--	--	16	9.8	85
APR										
10...	--	--	--	--	.160	--	--	144	93	97
MAY										
14...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	1760	17200	--
JUN										
21...	.080	--	.22	.30	.390	4.3	2.1	502	6480	--
JUL										
12...	--	--	--	--	.010	--	--	--	--	--
AUG										
14...	.300	3.5	.20	.50	1.50	4.0	2.1	912	1360	100

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
JUN									
21...	1135	<1	<1	1.0	<10	<10	<1	<1	<10
AUG									
14...	0950	<1	--	<1.0	--	<10	<1	--	<10

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN									
21...	<10	3	38	12000	94	<1	<1	220	7
AUG									
14...	--	13	--	--	52	<1	--	--	3

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
JUN								
21...	7	19	9	50	<1	<1	<.1	<.1
AUG								
14...	3	--	<3	--	<1	--	<.1	--

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
MAY 16...	1100	19	25	33	45	82	91	99	100	--
JUN 21...	1135	--	--	--	--	49	63	81	98	100

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUL 09...	1510	<.01	<.01	<.01	<.01	<.010	<.010

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06218500 WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼NE¼ sec.25, T.42 N., R.108 W., Fremont County, Hydrologic Unit 10080001, on left bank 2.5 mi upstream from Warm Springs Creek and 6.7 mi northwest of Dubois.

DRAINAGE AREA.--232 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,188.71 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records good except those for November to March, which are poor. Diversions above station for irrigation of about 2,300 acres.

AVERAGE DISCHARGE.--39 years, 178 ft³/s, 129,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s, June 8, 1972, gage height, 5.48 ft; maximum gage height, 5.66 ft, June 2, 1956; minimum daily discharge, 26 ft³/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 24	0900	945	4.40	June 18	0200	961	4.41
June 1	0200	*1,400	*4.93				

Minimum daily discharge, 54 ft³/s, Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	99	82	86	64	60	68	91	1130	671	261	119
2	142	99	86	84	64	62	67	90	820	605	252	115
3	134	100	88	84	64	62	67	95	813	604	239	109
4	130	100	90	87	62	62	70	93	679	568	223	112
5	125	98	88	90	62	60	80	96	616	566	227	111
6	118	99	92	94	63	58	83	85	565	525	213	122
7	113	105	94	96	62	60	85	82	493	480	203	130
8	109	117	96	98	62	62	91	87	464	499	188	121
9	108	89	98	90	60	64	90	110	411	451	181	136
10	129	80	100	80	58	64	80	128	410	372	172	122
11	132	80	99	75	56	66	73	118	416	341	161	113
12	127	85	94	75	58	64	63	149	394	331	156	147
13	121	85	90	72	60	64	76	213	462	321	156	122
14	120	80	90	70	60	65	70	303	554	316	154	112
15	126	80	90	70	58	64	92	391	695	291	150	108
16	117	80	90	68	58	64	118	520	717	283	158	114
17	111	85	90	66	60	71	137	411	783	274	176	111
18	113	90	86	64	58	73	147	433	823	262	155	104
19	101	85	86	64	56	70	139	516	747	249	149	101
20	105	80	86	66	54	70	120	654	796	249	146	100
21	107	80	82	68	56	73	110	599	794	245	138	108
22	105	80	80	68	58	74	117	462	782	325	131	114
23	107	80	78	70	60	75	130	511	705	537	129	135
24	111	84	76	71	60	73	113	843	715	382	135	134
25	98	86	78	72	58	74	108	657	758	320	130	126
26	104	86	80	74	56	74	89	536	815	320	150	124
27	100	84	82	76	56	72	85	509	821	285	133	130
28	98	82	86	74	58	71	93	513	789	291	124	117
29	98	82	82	74	58	70	85	667	766	301	118	113
30	95	80	80	68	---	70	83	938	793	287	115	123
31	99	---	82	64	---	68	---	1190	---	258	117	---
TOTAL	3565	2640	2701	2358	1719	2079	2829	12090	20526	11809	5140	3553
MEAN	115	88.0	87.1	76.1	59.3	67.1	94.3	390	684	381	166	118
MAX	162	117	100	98	64	75	147	1190	1130	671	261	147
MIN	95	80	76	64	54	58	63	82	394	245	115	100
AC-FT	7070	5240	5360	4680	3410	4120	5610	23980	40710	23420	10200	7050

CAL YR 1983 TOTAL 68542 MEAN 188 MAX 1120 MIN 52 AC-FT 136000
WTR YR 1984 TOTAL 71009 MEAN 194 MAX 1190 MIN 54 AC-FT 140800

YELLOWSTONE RIVER BASIN

06218500 WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-48, 1950-51, 1953, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
05...	1400	125	189	5.0	62	16	5.4	8.3	.5	1.6
FEB										
06...	1200	63	200	.0	87	25	6.0	8.9	.4	1.7
MAY										
03...	1400	86	228	6.0	99	28	7.1	13	.6	1.0
31...	1300	1150	103	6.0	43	12	3.1	6.4	.4	1.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
05...	75	7.0	1.4	.20	25	110	.15	37	.000	.060
FEB										
06...	92	10	1.4	.20	27	140	.18	23	.000	.060
MAY										
03...	110	13	1.0	.20	23	150	.21	35	.000	.060
31...	51	1.2	1.6	.10	16	72	.10	224	.000	.880

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°27'16", long 109°27'57", in SE¼SW¼NW¼ sec.34, T.6 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.0 mi upstream from mouth and 9.9 mi southeast of Dubois.

DRAINAGE AREA.--427 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1950 to September 1957, October 1975 to current year. Prior to October 1953, published as North Fork Wind River near Dubois.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft, from topographic map. Prior to Sept. 30, 1957, at site 50 ft upstream at same datum.

REMARKS.--Records poor. Diversions for irrigation of about 2,000 acres above station.

AVERAGE DISCHARGE.--16 years, 261 ft³/s, 189,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,980 ft³/s, June 9, 1981, gage height, 7.69 ft, from rating curve extended above 2,600 ft³/s; maximum gage height, 9.27 ft, June 30, 1957; minimum daily discharge, 18 ft³/s, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	0030	1,750	5.43	June 27	0130	1,870	5.56
May 31	0230	*2,700	*6.04				

Minimum daily discharge, 41 ft³/s, Apr. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	76	49	66	52	46	46	72	1150	732	330	112
2	192	74	52	64	52	47	44	74	678	733	320	107
3	174	74	56	62	50	48	43	74	735	749	310	100
4	160	72	60	66	50	47	45	71	569	648	290	98
5	155	70	64	68	50	46	60	80	499	714	290	94
6	151	68	68	72	49	45	62	61	470	641	280	111
7	149	67	72	74	49	47	58	57	395	602	260	128
8	156	66	76	75	48	47	63	62	351	660	250	105
9	159	62	78	74	47	45	64	130	315	600	230	110
10	165	62	80	72	46	46	60	177	328	470	220	98
11	156	62	78	68	44	46	52	129	307	450	210	95
12	149	62	76	66	45	46	42	204	238	430	190	132
13	145	64	74	64	46	45	47	525	372	420	180	106
14	145	66	74	61	46	45	41	805	794	400	170	97
15	152	66	73	58	46	45	50	1200	1190	390	165	94
16	136	64	71	56	46	45	70	1030	1120	370	191	113
17	128	72	72	50	46	47	90	506	1050	350	246	103
18	133	72	70	47	45	50	100	454	1130	340	235	91
19	114	66	68	48	44	44	94	709	982	320	219	83
20	119	62	66	49	43	56	86	1000	1160	320	207	85
21	121	56	64	52	43	55	66	836	1050	320	183	88
22	115	48	62	54	44	48	70	410	1060	380	167	98
23	103	46	60	56	46	54	84	547	932	620	149	136
24	110	52	60	58	46	66	80	1020	1040	500	159	150
25	100	54	60	60	45	88	74	508	1100	420	143	176
26	96	54	58	62	44	84	66	359	1210	400	139	198
27	92	52	58	62	43	70	64	339	1150	380	113	228
28	90	52	58	62	44	66	72	405	1080	390	106	170
29	86	50	60	58	44	74	70	754	1040	400	98	160
30	82	48	62	58	---	58	68	1500	1090	370	103	195
31	78	---	64	56	---	44	---	1670	---	340	111	---
TOTAL	4143	1859	2043	1898	1343	1640	1931	15768	24585	14859	6264	3661
MEAN	134	62.0	65.9	61.2	46.3	52.9	64.4	509	820	479	202	122
MAX	232	76	80	75	52	88	100	1670	1210	749	330	228
MIN	78	46	49	47	43	44	41	57	238	320	98	83
AC-FT	8220	3690	4050	3760	2660	3250	3830	31280	48760	29470	12420	7260

CAL YR 1983 TOTAL 89418 MEAN 245 MAX 2400 MIN 37 AC-FT 177400
WTR YR 1984 TOTAL 79994 MEAN 219 MAX 1670 MIN 41 AC-FT 158700

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT						
05...	1200	150	220	6.0	26	11
NOV						
14...	1055	65	200	2.0	31	5.4
DEC						
27...	1300	57	190	.0	39	6.0
FEB						
06...	1040	51	300	.0	268	37
MAR						
20...	1005	58	320	2.0	83	13
MAY						
03...	1105	76	220	5.0	380	78
22...	0600	434	190	4.0	71	83
31...	1605	1080	94	12.0	845	2460
JUN						
14...	1110	785	101	11.0	308	653
JUL						
23...	1000	620	160	16.0	1080	1810

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAY				
03...	1105	92	96	98
JUL				
23...	1000	62	74	84

06222700 CROW CREEK NEAR TIPPERARY, WY

LOCATION.--Lat 43°34'37", long 109°15'42", in sec.20, T.7 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank just above Crow Creek Canyon, 2.0 mi downsteam from Trail Creek, 5.0 mi north of Tipperary, and 19 mi north of Crowheart.

DRAINAGE AREA.--30.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft, from topographic map.

REMARKS.--Records good except those for November to March, which are poor. No diversion above station.

AVERAGE DISCHARGE.--22 years, 21.8 ft³/s, 15,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft³/s, June 16, 1965, gage height, 5.20 ft, from rating curve extended above 220 ft³/s on basis of velocity-area study; maximum gage height, 5.64 ft, Jan. 14, 1975 (backwater from ice); minimum daily discharge, 0.48 ft³/s, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 30	2400	*222	*5.31	June 15	2000	214	5.28

Minimum daily discharge, 2.0 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	4.6	3.6	2.9	2.2	2.6	3.7	4.7	117	60	17	6.3
2	8.2	4.7	3.8	2.8	2.3	2.7	3.7	4.5	84	60	17	6.2
3	8.5	4.6	4.0	2.9	2.3	2.8	3.6	4.7	78	51	14	5.9
4	8.3	4.4	4.2	3.0	2.3	2.8	3.6	4.5	58	51	13	5.7
5	7.9	4.2	4.0	3.0	2.3	2.7	3.8	4.4	56	50	13	5.6
6	7.9	4.3	4.3	3.1	2.2	2.8	3.7	4.5	52	42	12	6.4
7	8.0	4.3	4.5	3.2	2.2	2.8	3.7	4.7	44	42	11	6.9
8	7.7	4.2	4.5	3.2	2.2	2.9	3.7	4.9	39	40	10	6.1
9	7.8	4.3	4.6	3.3	2.2	3.0	3.8	7.6	34	34	9.8	6.1
10	8.3	4.1	4.5	3.2	2.2	2.9	3.6	11	35	34	9.6	5.9
11	7.6	4.1	4.6	3.1	2.1	3.0	3.8	9.7	34	32	9.2	5.7
12	7.2	4.1	4.6	2.9	2.2	3.1	3.7	22	32	29	9.0	6.2
13	6.9	4.1	4.6	2.8	2.2	3.2	3.7	52	48	28	9.0	5.8
14	7.1	4.0	4.5	2.6	2.3	3.3	3.8	89	115	26	8.5	5.5
15	7.2	4.1	4.4	2.5	2.3	3.3	4.2	131	149	23	8.2	5.4
16	6.6	4.3	4.2	2.3	2.3	3.4	5.1	105	128	22	9.4	5.4
17	6.4	4.5	4.0	2.1	2.3	3.3	6.6	71	103	20	11	5.4
18	6.4	4.5	3.9	2.0	2.3	3.3	13	67	100	19	10	5.2
19	6.9	4.4	3.8	2.1	2.2	3.4	18	89	105	17	16	5.3
20	6.7	4.3	3.8	2.1	2.2	3.5	10	134	105	16	11	5.2
21	6.2	3.9	3.7	2.2	2.3	3.5	7.5	100	101	19	9.6	5.5
22	5.6	3.6	3.3	2.3	2.4	3.5	6.0	68	91	23	9.0	5.3
23	5.6	3.4	3.1	2.3	2.4	3.5	6.4	90	80	31	8.3	5.4
24	5.8	3.8	2.7	2.4	2.4	3.5	6.6	122	87	23	7.8	5.6
25	5.7	4.3	2.8	2.5	2.6	3.5	6.0	67	86	24	7.7	5.3
26	5.7	4.5	2.9	2.5	2.6	3.5	5.5	52	89	19	7.7	6.1
27	5.5	4.5	3.0	2.6	2.5	3.4	5.2	41	83	17	6.9	6.5
28	4.9	4.3	3.0	2.7	2.5	3.4	5.0	52	80	16	6.6	6.2
29	4.7	3.9	2.9	2.5	2.5	3.5	4.8	100	77	20	6.3	5.6
30	4.8	3.4	2.7	2.4	---	3.6	4.7	152	78	15	6.2	6.5
31	4.8	---	2.8	2.3	---	3.7	---	168	---	14	6.3	---
TOTAL	209.1	125.7	117.3	81.8	67.0	99.4	166.5	1837.2	2368	917	310.1	174.2
MEAN	6.75	4.19	3.78	2.64	2.31	3.21	5.55	59.3	78.9	29.6	10.0	5.81
MAX	8.5	4.7	4.6	3.3	2.6	3.7	18	168	149	60	17	6.9
MIN	4.7	3.4	2.7	2.0	2.1	2.6	3.6	4.4	32	14	6.2	5.2
AC-FT	415	249	233	162	133	197	330	3640	4700	1820	615	346

CAL YR 1983 TOTAL 8686.3 MEAN 23.8 MAX 303 MIN 2.5 AC-FT 17230
WTR YR 1984 TOTAL 6473.3 MEAN 17.7 MAX 168 MIN 2.0 AC-FT 12840

06222700 CROW CREEK NEAR TIPPERARY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT				
05...	1015	7.9	95	3.5
NOV				
14...	1300	5.8	80	.0
JAN				
25...	1200	2.5	87	.5
MAR				
21...	1135	4.0	98	.0
MAY				
18...	1300	56	47	7.5
31...	1915	194	44	7.0
JUN				
20...	1315	80	48	10.0
JUL				
23...	1000	28	60	15.0
AUG				
14...	0835	11	91	8.0
SEP				
20...	1130	5.7	87	8.0

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY

LOCATION.--Lat 43°10'37", long 109°12'08", in NE¼SW¼ sec.2, T.2 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.2 mi upstream from high-water line of Bull Lake and 9.0 mi south of Crowheart.

DRAINAGE AREA.--187 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1941 to December 1953, October 1966 to current year. Monthly discharge only for some periods, published in WSP 1309. Prior to October 1950, published as "above Bull Lake Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 5,874 ft, from topographic map.

REMARKS.--Records good except those for December to February, which are poor. No diversions above station.

AVERAGE DISCHARGE.--30 years (water years 1942-53, 1967-84), 302 ft^3/s, 218,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,470 ft^3/s, June 9, 1981, gage height, 7.98 ft; minimum, 5.2 ft^3/s, Jan. 28, 1970, gage height, 1.44 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 1	0300	*1,850	*5.46	July 1	0830	1,730	5.32

Minimum daily discharge, 16 ft^3/s, Mar. 7, 10-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	88	74	28	22	18	21	61	1690	1640	845	318
2	222	89	71	30	22	19	21	62	1180	1330	770	295
3	218	89	69	30	23	19	22	64	963	1160	684	264
4	212	88	71	31	23	19	22	61	816	1130	614	237
5	199	86	69	33	23	19	23	62	706	1140	565	225
6	189	87	68	34	22	17	23	59	610	1100	541	250
7	175	89	72	35	22	16	24	58	521	1080	508	312
8	164	94	76	35	22	17	26	57	446	1250	478	292
9	160	90	74	34	22	17	28	72	384	1400	455	251
10	170	93	77	33	21	16	27	126	356	1260	441	218
11	173	92	75	31	20	16	26	137	365	1080	435	202
12	169	93	77	30	21	17	25	212	358	941	428	289
13	163	91	73	29	21	18	25	310	360	883	415	374
14	165	89	71	28	22	19	24	445	481	865	419	336
15	161	86	68	27	21	18	23	699	780	847	436	291
16	154	86	59	25	21	18	29	924	1010	813	441	252
17	146	82	58	23	21	18	38	770	1070	778	469	225
18	142	83	51	23	21	19	50	697	1070	758	501	206
19	132	80	48	22	20	20	58	730	1070	735	496	194
20	127	76	46	22	18	20	68	987	1150	721	474	190
21	119	73	42	23	18	21	68	1300	1250	704	427	207
22	116	74	36	24	18	20	69	893	1260	880	385	247
23	112	59	31	25	19	20	76	776	1160	1190	361	297
24	115	68	28	26	18	20	69	1010	1070	1210	357	358
25	111	83	30	26	17	20	66	829	1100	1050	357	325
26	109	82	32	26	17	20	63	628	1210	965	372	287
27	108	77	32	26	17	20	62	548	1320	888	376	258
28	102	76	31	27	18	21	63	522	1340	802	370	231
29	97	79	30	26	18	21	60	627	1330	784	360	210
30	95	63	29	25	---	20	59	916	1550	848	347	196
31	92	---	29	23	---	20	---	1460	---	838	329	---
TOTAL	4641	2485	1697	860	588	583	1258	16102	27976	31070	14456	7837
MEAN	150	82.8	54.7	27.7	20.3	18.8	41.9	519	933	1002	466	261
MAX	224	94	77	35	23	21	76	1460	1690	1640	845	374
MIN	92	59	28	22	17	16	21	57	356	704	329	190
AC-FT	9210	4930	3370	1710	1170	1160	2500	31940	55490	61630	28670	15540

CAL YR 1983 TOTAL 142293 MEAN 390 MAX 2780 MIN 20 AC-FT 282200
WTR YR 1984 TOTAL 109553 MEAN 299 MAX 1690 MIN 16 AC-FT 217300

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT				
19...	1130	131	38	4.5
NOV				
16...	1105	81	52	.0
MAR				
06...	0935	20	115	.5
APR				
07...	1330	24	60	8.0
16...	1220	31	55	12.0
JUN				
01...	1225	1650	30	6.0
22...	1010	1280	24	11.0
JUL				
25...	1030	1010	50	17.0
AUG				
28...	1145	400	28	16.5
SEP				
18...	1100	205	29	9.5

06225000 BULL LAKE CREEK NEAR LENORE, WY

LOCATION.--Lat 43°14'33", long 109°01'20", in NE¼NW¼ sec.17, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 700 ft upstream from mouth, 2.8 mi downstream from Bull Lake, and 8.5 mi southeast of Lenore.

DRAINAGE AREA.--213 mi^2, of which 12 mi^2 is probably noncontributing.

PERIOD OF RECORD.--May 1918 to current year.

REVISED RECORDS.--WSP 1309: 1921(M, date only), 1925(M), 1926(M), 1930(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,654 ft, from topographic map. May 18, 1918, to Sept. 30, 1922, at site 10 ft upstream at datum 0.86 ft higher; Oct. 1, 1922, to Oct. 3, 1934, at present site at datum 2.00 ft lower.

REMARKS.--Records good except those for December to February, which are poor. Flow completely regulated by Bull Lake 2.8 mi upstream since April 1938. (See station 06224500.) Diversions above station for irrigation of about 730 acres below.

AVERAGE DISCHARGE.--66 years, 280 ft^3/s, 202,900 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft^3/s, Aug. 8, 1951, gage height, 7.09 ft, result of automatic spillway gates releasing on Bull Lake Dam, from rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow; minimum prior to construction of Bull Lake Dam not determined, probably occurred during period of ice effect in March 1933; no flow Feb. 28 to Apr. 7, 1937 (result of regulation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft^3/s, July 10, gage height, 3.96 ft; minimum daily, 45 ft^3/s, Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	72	61	48	48	52	51	48	526	612	975	1090
2	374	72	58	48	48	52	51	47	413	785	968	1090
3	331	72	60	48	48	53	49	47	418	788	962	1080
4	301	72	60	48	48	53	49	48	417	794	959	1100
5	270	72	58	48	48	52	49	47	414	832	838	1110
6	197	77	60	48	48	53	49	48	415	895	701	1150
7	170	85	60	48	48	52	49	48	506	913	702	1150
8	144	89	61	48	48	52	49	48	599	952	706	1120
9	122	88	58	48	48	50	50	48	698	1050	708	1090
10	124	88	60	48	48	50	49	48	809	1320	742	1090
11	123	88	61	48	48	50	49	48	843	1340	772	1060
12	111	88	61	48	48	51	48	48	845	1110	765	969
13	96	89	58	48	48	52	48	48	846	882	764	899
14	96	90	60	47	48	52	48	48	677	867	761	760
15	95	91	61	45	48	52	49	48	359	862	760	726
16	94	86	58	47	48	52	49	48	147	867	758	713
17	88	70	58	47	48	52	49	48	122	866	757	712
18	78	61	56	47	48	51	48	48	120	867	753	707
19	76	61	54	47	48	51	49	48	110	982	750	738
20	70	61	54	48	48	51	52	48	97	1080	749	780
21	74	62	54	48	49	49	50	150	100	1150	744	766
22	74	61	54	48	50	49	50	550	102	1160	803	751
23	74	66	54	48	57	50	49	874	102	1130	958	748
24	73	61	54	48	52	49	49	949	102	1120	1040	657
25	72	62	54	48	52	50	49	972	104	1120	1100	442
26	72	63	54	49	53	49	49	965	90	1120	1110	283
27	72	62	52	50	53	50	48	960	57	1090	1110	207
28	72	63	50	49	53	49	47	953	58	1020	1110	120
29	72	63	50	49	52	49	47	943	138	991	1110	89
30	72	60	49	48	---	50	47	834	369	980	1100	82
31	72	---	48	48	---	49	---	691	---	975	1100	---
TOTAL	4129	2195	1750	1485	1431	1576	1469	9798	10603	30520	27135	23279
MEAN	133	73.2	56.5	47.9	49.3	50.8	49.0	316	353	985	875	776
MAX	374	91	61	50	57	53	52	972	846	1340	1110	1150
MIN	70	60	48	45	48	49	47	47	57	612	701	82
AC-FT	8190	4350	3470	2950	2840	3130	2910	19430	21030	60540	53820	46170

CAL YR 1983 TOTAL 133165 MEAN 365 MAX 2060 MIN 22 AC-FT 264100
WTR YR 1984 TOTAL 115370 MEAN 315 MAX 1340 MIN 45 AC-FT 228800

06225500 WIND RIVER NEAR CROWHEART, WY

LOCATION.--Lat 43°14'33", long 109°00'35", in NW¼NW¼ sec.16, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 0.9 mi downstream from Bull Lake Creek and 9.0 mi southeast of Crowheart.

DRAINAGE AREA.--1,891 mi^2.

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1116: 1946-47. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft, from topographic map.

REMARKS.--Records good except those for December to February, which are poor. Some regulation by Bull Lake on Bull Lake Creek. (See station 06224500.) Diversions for irrigation of about 25,000 acres above station.

AVERAGE DISCHARGE.--39 years, 1,240 ft^3/s, 898,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s, June 16, 1963, gage height, 9.16 ft; maximum gage height, 9.59 ft, June 9, 1981; minimum daily discharge, 130 ft^3/s, Feb. 5, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1927, reached a discharge of 13,000 ft^3/s; discharge measurement made by Bureau of Reclamation at site 1.0 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,310 ft^3/s, Aug. 1, gage height, 8.57 ft; minimum daily, 230 ft^3/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1540	642	370	400	330	340	338	410	5320	3990	3330	1840
2	1430	641	410	390	350	340	346	412	3700	3790	3120	1830
3	1340	637	450	360	360	330	335	405	3270	3660	2790	1790
4	1260	631	450	380	330	300	321	425	2940	3440	2740	1760
5	1190	619	450	400	330	280	333	415	2500	3560	2490	1760
6	1090	630	420	410	330	290	370	418	2280	3530	2190	1800
7	1020	629	450	420	330	300	365	380	2150	3420	2110	1940
8	988	713	450	440	320	330	359	389	2080	3600	1980	1950
9	958	607	430	410	310	350	376	414	2050	3800	1890	1880
10	984	522	450	400	300	340	371	617	2140	3790	1860	1820
11	1020	612	450	400	290	350	338	641	2320	3520	1830	1740
12	965	630	450	400	300	350	313	631	2190	3140	1840	1710
13	921	606	450	380	320	360	292	1030	2300	2790	1790	1620
14	907	569	450	350	320	370	317	1600	2630	2740	1750	1400
15	912	487	450	320	300	369	318	2050	2920	2630	1760	1330
16	895	545	430	320	300	367	441	2660	3160	2580	1770	1290
17	836	536	400	300	300	343	698	2390	3210	2500	1900	1300
18	823	543	380	270	300	350	874	2010	3360	2470	1890	1270
19	802	484	350	290	300	338	859	2130	3060	2540	1910	1270
20	753	473	320	300	300	371	825	2840	3300	2620	1890	1310
21	758	487	300	320	310	396	698	3300	3270	2680	1780	1280
22	742	441	280	330	300	345	594	2870	3320	2890	1740	1300
23	728	344	230	340	300	344	588	2860	3020	4230	1870	1490
24	761	340	280	350	300	356	608	3950	2980	3940	1940	1520
25	731	400	350	350	330	353	538	3590	3130	3640	1990	1320
26	694	450	400	360	310	346	516	2810	3380	3560	2050	1190
27	690	420	450	370	300	344	407	2620	3500	3310	2020	1130
28	666	400	380	380	310	315	409	2510	3360	3020	1940	972
29	654	420	300	380	320	311	449	2900	3380	2990	1900	973
30	651	370	350	350	---	332	420	3910	3850	3030	1880	965
31	638	---	380	320	---	333	---	4980	---	2950	1880	---
TOTAL	28347	15828	12160	11190	9100	10543	14016	58567	90070	100350	63820	44750
MEAN	914	528	392	361	314	340	467	1889	3002	3237	2059	1492
MAX	1540	713	450	440	360	396	874	4980	5320	4230	3330	1950
MIN	638	340	230	270	290	280	292	380	2050	2470	1740	965
AC-FT	56230	31390	24120	22200	18050	20910	27800	116200	178700	199000	126600	88760

CAL YR 1983 TOTAL 541995 MEAN 1485 MAX 7940 MIN 230 AC-FT 1075000
WTR YR 1984 TOTAL 458741 MEAN 1253 MAX 5320 MIN 230 AC-FT 909900

06228000 WIND RIVER AT RIVERTON, WY

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼NW¼NW¼ sec.2, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 265 ft downstream from bridge on State Highway 789, 1.1 mi southeast of post office in Riverton, and 1.5 mi upstream from Little Wind River.

DRAINAGE AREA.--2,309 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to August 1906, August to December 1907, May to October 1908, May 1911 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Big Wind River near Arapahoe Agency 1906 and as Big Wind River near Riverton 1907-08.

REVISED RECORDS.--WSP 1509: 1935. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.56 ft, National Geodetic Vertical Datum of 1929. See WSP 1729 for history of changes prior to Oct. 13, 1930. Oct. 13, 1930, to Apr. 15, 1968, water-stage recorder at site 280 ft upstream at datum 2.00 ft higher. Apr. 16 to Nov. 17, 1968, water-stage recorder at site 880 ft upstream at datum 2.00 ft higher. Nov. 18, 1968, to July 28, 1970, water-stage recorder at site 225 ft upstream at datum 2.00 ft higher. July 29, 1970, to Sept. 30, 1977, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Records good except those for December to March, which are poor. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft. Diversions above station for irrigation of about 128,000 acres above and below station. The Wyoming canal of the Riverton project is the major diversion. This diversion began in 1926 and part of it can be returned to the river above station through Pilot wasteway. Additional waste water returns to river below station through Fivemile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s, June 15, 1935, gage height, 10.15 ft, present datum, from rating curve extended above 7,200 ft³/s; maximum gage height, 10.80 ft, Dec. 30, 1983 (backwater from ice); minimum daily discharge, 9.8 ft³/s, May 28, July 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,020 ft³/s, June 1, gage height, 7.60 ft; maximum gage height, 10.80 ft, Dec. 30 (backwater from ice); minimum daily discharge, 79 ft³/s, May 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	629	420	360	460	400	236	91	3290	1950	1170	475
2	900	640	410	390	470	390	237	87	2140	1820	1610	418
3	1000	640	440	380	480	380	237	88	1250	1580	1120	418
4	1000	634	500	350	480	370	198	91	1140	1410	956	380
5	1010	623	500	380	470	370	176	93	607	1380	956	370
6	915	618	500	400	460	380	186	89	290	1420	629	380
7	832	623	470	420	470	390	196	90	144	1310	440	433
8	799	684	500	420	480	400	165	86	229	1310	410	548
9	797	620	500	450	480	400	146	83	157	1520	363	517
10	856	530	500	440	460	410	142	79	208	1620	324	492
11	949	560	520	420	450	410	123	131	598	1500	355	432
12	929	610	500	420	470	410	107	99	434	1180	350	405
13	885	600	500	420	490	400	104	89	388	706	332	393
14	856	560	500	410	520	400	98	517	688	537	290	273
15	842	550	500	400	480	380	97	817	1010	440	303	199
16	843	541	500	380	460	380	97	1590	1340	318	330	173
17	798	568	480	360	450	380	137	1710	1390	264	371	161
18	755	575	450	360	450	390	178	1360	1520	254	442	155
19	747	550	420	340	440	390	134	1170	1490	322	446	133
20	703	496	370	350	430	400	102	1650	1410	404	457	157
21	700	526	340	370	420	410	105	2300	1450	455	348	154
22	701	499	300	380	400	390	96	1810	1380	535	240	134
23	687	444	270	390	400	380	87	1300	1170	1430	330	228
24	728	397	250	400	400	380	80	1850	951	2210	382	506
25	715	380	270	420	400	360	117	2700	1030	1600	424	499
26	679	400	300	420	410	350	100	1440	1200	1570	470	488
27	651	440	350	430	400	310	88	881	1350	1420	503	352
28	667	470	400	440	400	260	87	689	1340	1260	400	326
29	651	450	350	450	400	250	90	687	1300	1030	385	281
30	636	440	270	450	---	240	97	1520	1480	1190	406	346
31	638	---	320	450	---	230	---	2360	---	1150	464	---
TOTAL	24569	16297	12900	12450	12980	11390	4043	27547	32374	35095	16006	10226
MEAN	793	543	416	402	448	367	135	889	1079	1132	516	341
MAX	1010	684	520	450	520	410	237	2700	3290	2210	1610	548
MIN	636	380	250	340	400	230	80	79	144	254	240	133
AC-FT	48730	32330	25590	24690	25750	22590	8020	54640	64210	69610	31750	20280

CAL YR 1983 TOTAL 317799 MEAN 871 MAX 6340 MIN 40 AC-FT 630400
WTR YR 1984 TOTAL 215877 MEAN 590 MAX 3290 MIN 79 AC-FT 428200

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1960 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 05...	1040	1030	296	9.5	110	30	8.4	14	.6	1.6
DEC 30...	1120	271	442	.0	180	50	14	24	.8	2.1
MAY 11...	0910	125	702	8.0	270	70	23	58	2	2.3
JUN 25...	2200	1540	176	14.5	69	20	4.7	8.5	.5	.00

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 05...	110	36	2.8	.20	10	170	.23	470	.400	.210
DEC 30...	160	66	4.6	.20	16	270	.37	200	.200	.040
MAY 11...	200	180	9.9	.40	10	470	.64	160	.000	.000
JUN 25...	75	16	1.2	.10	14	110	.15	455	.200	.040

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°58'06", long 109°02'13", in SE¼SW¼SE¼ sec.18, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.9 mi upstream from Washakie Dam and 8.0 mi southwest of Fort Washakie.

DRAINAGE AREA.--90.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft, from topographic map.

REMARKS.--Records good except those for November and December, which are poor.

AVERAGE DISCHARGE.--8 years, 128 ft³/s, 92,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s, June 9, 1981, gage height, 8.21 ft; minimum daily, 4.5 ft³/s, Feb. 1-9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 740 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 20	2200	797	5.47	July 1	0300	753	5.36
June 1	0100	*1,110	*6.26				

Minimum daily discharge, 10 ft³/s, Mar. 10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	36	28	21	14	11	19	37	859	675	197	66
2	70	36	29	22	13	11	19	37	552	533	188	63
3	68	36	30	21	13	11	17	38	519	485	177	59
4	66	35	31	20	13	11	20	37	436	477	158	54
5	62	35	33	22	13	12	20	39	375	485	141	50
6	59	36	31	21	13	11	21	37	308	449	129	55
7	57	39	31	21	13	11	22	36	256	437	119	73
8	54	37	33	20	12	11	23	38	242	515	109	66
9	53	33	34	19	12	11	23	61	200	569	102	60
10	55	40	35	18	12	10	22	91	188	518	96	56
11	56	39	36	18	12	10	22	103	195	413	91	54
12	54	38	34	18	13	10	22	156	184	344	88	125
13	52	36	32	18	13	10	23	180	206	317	85	143
14	52	37	30	18	13	10	22	264	360	312	82	124
15	53	37	29	17	14	11	25	411	534	298	83	108
16	50	36	28	16	14	11	30	449	620	275	90	95
17	49	35	27	16	14	11	40	296	636	254	97	87
18	47	35	25	15	14	12	53	286	626	241	94	78
19	43	33	24	14	14	13	51	354	598	232	91	71
20	47	30	23	14	13	14	41	555	640	224	103	66
21	45	29	22	14	13	14	40	668	670	221	96	71
22	44	29	21	15	12	14	42	439	658	363	89	81
23	42	28	20	16	12	16	49	418	580	394	82	117
24	44	33	20	15	11	17	46	653	548	326	82	141
25	42	36	21	15	11	17	44	452	576	277	80	114
26	44	38	21	15	11	17	36	317	586	241	96	98
27	42	36	22	15	11	18	36	296	605	212	91	90
28	39	34	23	15	11	18	39	314	593	197	85	79
29	39	31	22	15	11	18	37	429	573	187	77	73
30	37	29	21	14	---	18	36	624	662	178	70	70
31	37	---	21	14	---	19	---	902	---	180	66	---
TOTAL	1574	1042	837	532	365	408	940	9017	14585	10829	3234	2487
MEAN	50.8	34.7	27.0	17.2	12.6	13.2	31.3	291	486	349	104	82.9
MAX	72	40	36	22	14	19	53	902	859	675	197	143
MIN	37	28	20	14	11	10	17	36	184	178	66	50
AC-FT	3120	2070	1660	1060	724	809	1860	17890	28930	21480	6410	4930

CAL YR 1983 TOTAL 62355 MEAN 171 MAX 1520 MIN 13 AC-FT 123700
WTR YR 1984 TOTAL 45850 MEAN 125 MAX 902 MIN 10 AC-FT 90940

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
14...	1115	52	50	5.0	24	6.3	2.1	2.2	.2	.50
NOV										
10...	1230	42	55	.0	28	7.3	2.3	3.0	.3	.60
JAN										
04...	1045	20	72	.5	39	9.9	3.5	3.7	.3	.60
APR										
04...	1020	19	130	5.0	52	13	4.8	4.9	.3	.90
MAY										
16...	1340	398	31	6.0	16	4.5	1.1	1.7	.2	.70
30...	1030	598	32	4.5	12	3.3	.80	.90	.1	.60
JUN										
21...	1315	670	24	9.5	9	2.7	.60	.90	.1	.40
JUL										
24...	1040	334	60	17.0	11	3.2	.80	1.0	.1	.60
AUG										
21...	0820	93	41	12.0	19	5.1	1.4	2.0	.2	.60
SEP										
05...	1025	62	57	12.0	22	6.0	1.8	1.8	.2	.70

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
14...	23	3.4	3.2	<.10	3.2	35	.05	4.9	<.100	.010
NOV										
10...	26	4.2	4.1	<.10	4.2	41	.06	4.7	<.100	<.010
JAN										
04...	36	5.6	7.0	.20	6.1	58	.08	3.1	.110	.030
APR										
04...	46	7.0	9.6	<.10	6.6	74	.10	3.8	.100	.010
MAY										
16...	12	7.0	1.1	<.10	4.8	28	.04	30	<.100	.030
30...	9.0	5.0	.90	<.10	3.9	21	.03	34	<.100	.010
JUN										
21...	11	3.2	.50	<.10	2.7	18	.02	32	<.100	<.010
JUL										
24...	9.0	2.0	.40	<.10	2.1	15	.02	14	<.100	<.010
AUG										
21...	15	2.6	1.8	<.10	2.4	25	.03	6.3	<.100	.010
SEP										
05...	18	2.8	2.3	<.10	25	51	.07	8.6	<.100	.200

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY

LOCATION.--Lat 42°57'35", long 108°29'51", in NW¼NW¼SW¼ sec.23, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 0.4 mi southwest of Arapahoe school, 1.2 mi upstream from Popo Agie River, and 5.4 mi downstream from Seventeen Mile bridge.

DRAINAGE AREA.--660 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1906 to December 1909, May 1911 to November 1918, October 1979 to current year. Prior to October 1979, intermittent record. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,990 ft, from topographic map. May 1906 to December 1909, nonrecording gage 300 ft upstream at different datum, and May 1911 to November 1918, nonrecording gage 0.3 mi downstream at different datum.

REMARKS.--Records good except those for December to March, which are poor. Some regulation by Washakie Reservoir, 34 mi upstream, capacity 7,940 acre-ft, and return flow from irrigation. Diversions for irrigation of about 26,000 acres above station.

AVERAGE DISCHARGE.--5 years (water years 1980-84), 221 ft³/s, 160,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,840 ft³/s, June 17, 1911, gage height, 6.60 ft, datum then in use; maximum gage height 12.15 ft, June 10, 1981, June 13, 1983; minimum daily discharge recorded, 14 ft³/s, May 18, 1982.

Peak discharges for the water years 1980-83 above base of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 25, 1980	0300	2,020	10.83	May 31, 1983	1030	1,870	10.63
June 13, 1980	0730	*2,110	*10.94	June 13, 1983	0430	*3,150	*12.15
June 21, 1980	2330	1,750	10.46	June 20, 1983	0400	2,550	11.48
July 2, 1980	2030	1,410	9.97	June 26, 1983	0500	2,800	11.77
				July 3, 1983	2130	2,830	11.80
June 10, 1981	1700	*3,280	*12.15	July 11, 1983	1130	2,200	11.05
June 29, 1982	2030	*1,590	*10.13				

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 21	1800	1,340	10.04	June 1	2100	*1,650	*10.48

Minimum daily discharge, 36 ft³/s, Aug. 12, 14.

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	134	86	82	80	118	141	248	1450	935	179	60
2	209	130	88	86	86	125	143	253	1220	906	248	65
3	206	130	90	86	90	125	144	233	834	698	205	61
4	209	130	92	88	96	120	160	186	762	607	176	66
5	206	130	94	90	102	115	163	181	612	605	169	68
6	187	130	88	94	98	115	172	159	520	597	156	63
7	183	127	88	96	98	115	165	164	445	567	131	68
8	179	136	90	98	100	118	178	164	382	553	118	65
9	178	143	92	100	103	120	168	148	354	689	81	69
10	180	123	100	100	100	120	153	152	310	790	53	68
11	181	143	102	98	98	125	144	172	380	717	40	67
12	177	141	106	96	100	128	129	181	378	575	36	76
13	174	133	108	100	105	130	124	221	326	478	40	92
14	174	134	108	100	108	135	122	288	326	411	36	90
15	169	128	102	90	105	140	121	331	571	371	37	112
16	159	123	96	84	100	150	120	427	860	352	50	124
17	156	130	98	80	105	140	119	426	986	311	59	131
18	155	132	96	76	105	135	117	546	1030	259	65	135
19	152	135	94	72	100	130	117	574	946	237	66	124
20	151	120	90	72	100	140	135	700	902	208	75	119
21	145	120	83	74	102	150	168	1100	922	206	73	95
22	144	105	76	78	105	160	188	1150	933	199	65	98
23	142	92	74	82	108	170	171	798	874	290	62	112
24	147	86	74	86	105	180	168	796	752	484	63	187
25	152	90	76	90	108	190	184	1020	691	390	65	210
26	148	96	86	92	115	180	207	719	647	346	61	248
27	142	100	90	92	110	170	205	533	673	283	67	253
28	141	94	90	88	110	149	200	469	699	238	63	240
29	136	92	84	84	112	142	211	456	694	198	54	202
30	135	88	82	82	---	146	221	549	669	177	50	180
31	136	---	80	80	---	145	---	889	---	159	49	---
TOTAL	5162	3595	2803	2716	2954	4326	4758	14233	21148	13836	2692	3548
MEAN	167	120	90.4	87.6	102	140	159	459	705	446	86.8	118
MAX	209	143	108	100	115	190	221	1150	1450	935	248	253
MIN	135	86	74	72	80	115	117	148	310	159	36	60
AC-FT	10240	7130	5560	5390	5860	8580	9440	28230	41950	27440	5340	7040

CAL YR 1983 TOTAL 120056 MEAN 329 MAX 3060 MIN 45 AC-FT 238100
WTR YR 1984 TOTAL 81771 MEAN 223 MAX 1450 MIN 36 AC-FT 162200

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 06...	1300	190	750	12.0	300	68	32	55	1	2.0
NOV 15...	1300	126	890	2.0	350	80	37	66	2	2.0
JAN 09...	1120	101	925	.0	360	80	39	65	2	2.9
JUN 20...	1310	870	245	18.0	89	23	7.7	13	.6	.40
AUG 21...	1140	71	916	20.5	370	81	40	76	2	3.4

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	150	240	8.3	.30	4.1	500	.68	256	.000	.030
NOV 15...	170	310	9.9	.30	7.2	610	.84	209	.300	.020
JAN 09...	190	300	12	.30	12	630	.85	170	.500	.000
JUN 20...	59	56	2.4	.20	4.2	140	.19	334	.000	.010
AUG 21...	190	320	9.3	.50	6.6	650	.89	125	.000	.050

06232600 POPO AGIE RIVER AT HUDSON SIDING, NEAR LANDER, WY

LOCATION.--Lat 42°51'59", long 108°41'04", in NW¼NE¼ sec.30, T.2 S., R.2 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank at bridge on private road, 1.2 mi downstream from North Popo Agie River, and 3.2 mi northeast of Lander.

PERIOD OF RECORD.--October to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT 18...	1015	181	435	8.7	5.5	13.8	134
NOV 10...	1405	168	630	8.6	1.0	12.2	104
FEB 13...	1015	56	630	8.0	.0	11.7	99
MAR 28...	1100	105	935	8.2	3.5	10.6	97
MAY 16...	1015	1320	156	8.0	6.0	10.3	101
JUN 11...	1055	449	440	8.1	6.0	10.2	101
JUL 27...	1145	305	420	8.0	19.0	8.8	115
AUG 21...	1015	162	650	8.2	15.0	9.4	113
SEP 05...	1130	125	700	8.3	15.0	8.5	102

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 18...	35	<.100	.010	.59	.60	.010
NOV 10...	K16	.300	.130	.57	.70	.040
FEB 13...	K14	.300	.340	.26	.60	.140
MAR 28...	K4	.500	.560	.24	.80	.170
MAY 16...	210	.100	.120	1.4	1.5	.320
JUN 11...	360	.200	.070	.43	.50	.080
JUL 27...	150	<.100	.130	.87	1.0	.070
AUG 21...	230	<.100	.020	.58	.60	.060
SEP 05...	140	<.100	.060	.24	.30	.060

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY

LOCATION.--Lat 42°43'00", long 108°38'34", in NE¼SE¼ sec.27, T.32 N., R.99 W., Fremont County, Hydrologic Unit 10080003, on left bank 700 ft downstream from bridge on State Highway 28, 2.5 mi downstream from Red Canyon Creek, and 9.5 mi southeast of post office in Lander.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--March 1946 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,436.49 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, Apr. 4 to May 7, which are poor. Diversions for irrigation of about 540 acres above station. Slight regulation by Christina Lake, capacity, about 3,860 acre-ft.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1947-71), 80.3 ft^3/s, 58,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft^3/s, June 16, 1963, gage height, 6.64 ft; minimum daily, 12 ft^3/s, Jan. 20, 21, Feb. 26 to Mar. 2, 1960, Jan. 10, 11, 18, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 21	0700	*1,030	*5.38	June 19	0800	386	4.09
June 1	0400	806	5.01				

Minimum daily discharge during period of operation, 35 ft^3/s, Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							36	52	685	277	110	75
2							35	56	494	226	99	71
3							37	60	454	202	91	69
4							39	58	406	190	86	68
5							40	56	398	178	80	68
6							42	54	346	166	78	77
7							42	56	307	155	78	100
8							43	67	280	155	69	86
9							46	81	253	169	68	78
10							43	112	241	202	64	75
11							40	142	256	166	62	78
12							39	212	229	145	68	112
13							42	258	220	135	61	100
14							45	361	250	145	58	91
15							56	524	301	128	57	86
16							68	639	334	118	57	81
17							76	550	338	108	60	78
18							86	486	318	102	57	74
19							90	482	362	99	57	72
20							84	588	358	97	55	71
21							80	983	350	99	53	81
22							70	763	338	104	69	83
23							66	660	304	112	78	81
24							64	818	286	169	78	83
25							62	690	274	140	77	80
26							60	534	256	120	78	76
27							58	498	250	106	75	70
28							66	470	250	100	71	66
29							60	486	238	95	71	62
30							50	555	253	89	69	58
31							---	665	---	89	69	---
TOTAL							1665	12016	9629	4386	2203	2350
MEAN							55.5	388	321	141	71.1	78.3
MAX							90	983	685	277	110	112
MIN							35	52	220	89	53	58
AC-FT							3300	23830	19100	8700	4370	4660

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY

LOCATION.--Lat 42°56'47", Long 108°30'34", in NE¼NE¼SW¼ sec.27, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank 1.4 mi southwest of Arapahoe school and 3.0 mi upstream from Little Wind River.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,995.72 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, May 29 to June 22, which are poor. Diversions for irrigation of about 36,900 acres above station.

AVERAGE DISCHARGE.--5 years, 393 ft³/s, 284,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD: Maximum discharge, 4,240 ft³/s, June 12, 1983, gage height, 9.93 ft; minimum daily, 28 ft³/s, Aug. 6, 1981.

Peak discharges for the water years 1980-83 above base of 2,000 ft³/s and maximum (*)

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 24, 1980	unknown	a2,900	--	June 29, 1982	1430	*2,350	*7.67
June 12, 1980	1700	*3,190	*9.21				
June 20, 1980	1200	2,340	7.99	May 31, 1983	1000	2,970	8.46
a-Estimate.				June 12, 1983	1600	*4,240	*9.93
				June 24, 1983	0900	3,850	9.50
June 9, 1981	1800	*2,430	*7.94	July 3, 1983	0400	3,030	8.54
				July 10, 1983	2000	2,670	8.09

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 21	1230	2,640	8.04	June 1	unknown	a*2,700	unknown

a-Estimate.

Minimum daily discharge, 120 ft³/s, Jan. 31 to Feb. 3.

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278	210	160	150	120	150	231	457	2500	1180	434	176
2	292	203	170	150	120	160	217	578	2100	951	469	186
3	292	203	160	160	120	160	213	570	1500	813	425	185
4	292	199	170	160	130	150	246	462	1400	764	370	176
5	268	198	170	170	130	150	253	416	1100	764	339	176
6	271	199	160	170	130	150	312	398	960	716	317	181
7	262	202	160	170	130	150	368	400	840	661	284	229
8	255	258	170	180	130	160	419	386	720	690	244	258
9	252	210	180	180	130	160	408	380	660	799	223	240
10	260	229	180	180	130	160	318	475	600	799	214	220
11	278	258	190	170	130	160	269	587	780	714	192	205
12	270	240	200	170	130	170	233	699	660	578	193	257
13	270	229	200	180	140	180	220	898	580	512	203	419
14	269	213	190	170	140	190	214	1020	650	502	182	353
15	273	203	190	160	130	210	214	1380	800	467	187	327
16	272	208	180	150	130	220	227	1910	1150	420	193	323
17	267	207	180	150	140	210	251	1800	1300	383	213	294
18	262	218	170	140	140	200	289	1610	1300	355	250	267
19	258	208	170	130	130	190	332	1560	1250	332	235	245
20	251	189	160	130	130	200	353	1750	1250	335	242	223
21	256	180	150	130	130	210	349	2430	1300	336	231	223
22	265	170	140	140	140	230	332	2260	1300	389	219	269
23	260	160	130	140	140	250	305	1850	1100	542	234	292
24	278	150	130	150	130	280	298	2190	1010	788	256	429
25	266	160	140	160	140	300	309	2300	988	676	263	418
26	228	160	150	160	150	257	348	1700	953	560	270	383
27	230	170	160	160	140	239	297	1510	961	477	273	360
28	224	170	170	150	140	216	304	1400	971	425	248	349
29	211	160	160	140	140	208	343	1400	935	405	204	326
30	215	160	150	130	---	225	352	1400	987	390	171	309
31	211	---	140	120	---	210	---	1900	---	373	169	---
TOTAL	8036	5924	5130	4800	3860	6105	8824	38076	32605	18096	7947	8298
MEAN	259	197	165	155	133	197	294	1228	1087	584	256	277
MAX	292	258	200	180	150	300	419	2430	2500	1180	469	429
MIN	211	150	130	120	120	150	213	380	580	332	169	176
AC-FT	15940	11750	10180	9520	7660	12110	17500	75520	64670	35890	15760	16460

CAL YR 1983 TOTAL 203990 MEAN 559 MAX 3970 MIN 78 AC-FT 404600
WTR YR 1984 TOTAL 147701 MEAN 404 MAX 2500 MIN 120 AC-FT 293000

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1980 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 06...	1100	267	709	10.0	300	74	29	44	1	2.3
NOV 15...	1045	217	866	3.0	380	89	39	63	1	2.6
JAN 09...	1000	181	839	.0	340	80	34	52	1	2.7
FEB 09...	1200	130	895	.0	380	91	37	60	1	2.3
MAR 27...	1020	254	1450	1.0	520	110	59	120	2	4.6
MAY 17...	1345	1800	290	8.0	110	28	10	9.0	.4	1.2
JUN 22...	1600	1340	277	12.0	110	28	9.1	13	.6	1.1
JUL 25...	1330	666	565	22.0	210	50	20	32	1	2.7
AUG 21...	1415	239	833	22.0	350	83	34	54	1	2.8
SEP 07...	0950	216	923	13.0	370	87	37	62	1	2.6

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	146	240	5.0	.30	6.0	490	.66	352	<.100	.020
NOV 15...	174	330	6.7	.30	6.7	640	.87	376	.550	.010
JAN 09...	177	270	6.1	.30	11	560	.76	275	.630	.060
FEB 09...	192	320	6.8	.30	12	640	.88	226	.670	.090
MAR 27...	211	570	11	.30	11	1000	1.4	694	1.60	.230
MAY 17...	76	54	1.8	.20	8.5	160	.22	769	.150	.500
JUN 22...	66	67	1.5	.20	5.8	170	.22	598	<.100	.090
JUL 25...	104	170	3.4	.20	8.6	350	.48	628	<.100	.370
AUG 21...	176	270	5.4	.30	7.8	560	.77	363	<.100	.080
SEP 07...	177	310	5.6	.30	6.4	620	.84	360	<.100	.030

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY 17...	1345	<.01	<.01	<.01	<.01	.100	.020
JUN 22...	1600	.01	<.01	<.01	<.01	.050	.010
JUL 25...	1330	.03	<.01	<.01	<.01	.320	.030
AUG 21...	1415	.06	<.01	<.01	<.01	.100	.090
SEP 07...	0950	.03	<.01	<.01	<.01	.260	.080

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY

LOCATION.--Lat 42°59'51", long 108°22'29", in NE¼NW¼ sec.11, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.8 mi upstream from mouth and 1.9 mi southeast of Riverton.

DRAINAGE AREA.--1,904 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year. Prior to October 1958, published as Popo Agie River near Riverton.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.84 ft, National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1956, at site 600 ft downstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 62,900 acres above station.

AVERAGE DISCHARGE.--43 years, 591 ft³/s, 428,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s, June 17, 1963, gage height, 10.85 ft; minimum daily, 41 ft³/s, Aug. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 21	2100	4,370	6.80	June 1	1700	*4,470	*6.86

Minimum daily discharge, 200 ft³/s, Jan. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	360	240	230	220	280	390	651	4130	2230	617	260
2	450	353	250	240	220	290	391	834	3430	1950	746	278
3	470	351	250	250	220	290	373	826	2490	1550	695	274
4	480	348	260	250	230	280	428	663	2350	1370	609	272
5	480	348	260	260	240	270	444	563	1900	1350	573	276
6	467	346	250	260	230	280	494	530	1670	1320	543	274
7	453	352	250	270	230	280	539	521	1460	1210	476	297
8	443	417	260	280	230	290	589	493	1210	1180	416	335
9	441	420	270	290	230	290	563	457	1080	1410	366	324
10	450	391	280	290	230	300	483	517	997	1540	318	311
11	461	408	290	270	230	300	408	669	1200	1420	274	297
12	453	433	300	270	240	310	355	806	1090	1150	253	308
13	452	413	300	280	240	330	325	1080	944	969	267	475
14	453	400	300	270	240	360	313	1410	985	865	252	439
15	459	382	290	250	250	380	302	1910	1420	805	240	428
16	444	360	280	230	240	400	306	2600	2150	728	253	436
17	434	379	280	230	250	380	323	2630	2270	649	266	417
18	432	381	270	210	250	360	352	2540	2270	584	305	403
19	423	385	270	200	240	340	401	2410	2180	529	318	375
20	412	353	260	200	240	360	464	2670	2170	501	328	344
21	415	361	240	210	240	390	509	3770	2210	497	324	324
22	421	303	220	220	250	420	495	4040	2230	524	299	354
23	415	252	210	230	250	450	440	3140	2080	734	302	397
24	438	240	210	240	250	490	414	3170	1850	1460	314	563
25	441	250	220	250	260	520	468	3850	1770	1240	330	636
26	391	260	230	260	270	480	538	2790	1710	983	326	638
27	386	270	250	260	260	450	484	2220	1710	832	343	611
28	380	260	260	250	260	420	457	2010	1760	747	322	585
29	367	260	250	250	270	393	506	1990	1720	657	286	519
30	366	250	230	240	---	405	519	2320	1680	612	251	478
31	362	---	230	230	---	388	---	3020	---	574	249	---
TOTAL	13339	10286	7960	7670	7010	11176	13073	57100	56116	32170	11461	11928
MEAN	430	343	257	247	242	361	436	1842	1871	1038	370	398
MAX	480	433	300	290	270	520	589	4040	4130	2230	746	638
MIN	362	240	210	200	220	270	302	457	944	497	240	260
AC-FT	26460	20400	15790	15210	13900	22170	25930	113300	111300	63810	22730	23660

CAL YR 1983 TOTAL 363048 MEAN 995 MAX 8300 MIN 190 AC-FT 720100
WTR YR 1934 TOTAL 239289 MEAN 654 MAX 4130 MIN 200 AC-FT 474600

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1960-64, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 05...	1440	503	776	14.5	320	75	32	57	1	2.0
JAN 03...	1500	245	867	.0	330	76	34	60	1	1.9
JUN 18...	1210	2290	319	16.0	120	30	9.8	18	.8	.60
SEP 07...	0800	292	966	15.0	380	88	38	71	2	2.0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 05...	150	260	7.7	.30	6.2	530	.72	720	.000	.030
JAN 03...	190	270	11	.20	10	580	.78	382	.400	.060
JUN 18...	73	77	3.8	.10	5.6	190	.26	1170	.100	.180
SEP 07...	190	320	4.2	.30	10	650	.88	510	.000	.000

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

LOCATION.--Lat 43°07'43", long 108°13'28", in NW¼NE¼NE¼ sec.25, T.2 N., R.5 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, 4.0 mi upstream from Muskrat Creek, 5.3 mi upstream from high-water line of Boysen Reservoir at elevation 4,725 ft, and 9.4 mi southwest of Shoshoni.

DRAINAGE AREA.--4,390 mi².

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT 06...	1100	1780	560	7.8	10.0	9.2	98
NOV 25...	1115	E900	600	8.0	.0	12.0	98
FEB 14...	1330	773	580	7.6	.0	11.9	99
MAR 29...	1400	700	600	8.0	2.0	11.4	99
MAY 16...	1410	2650	540	8.0	12.0	8.6	97
JUN 14...	1145	1580	495	7.9	19.5	9.1	119
JUL 30...	0945	2740	400	7.6	19.5	7.0	92
AUG 22...	1140	785	430	8.4	19.0	8.4	108
SEP 06...	0800	840	500	8.1	19.0	8.6	113

E-Estimate.

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	3000	.100	.100	.90	1.0	.110
NOV 25...	K1300	<.100	.040	.46	.50	.030
FEB 14...	K1400	.500	.120	.18	.30	.060
MAR 29...	250	.600	.210	.59	.80	.230
MAY 16...	930	.200	.090	1.4	1.5	.090
JUN 14...	460	.100	.030	.57	.60	.140
JUL 30...	210	.100	.090	.61	.70	.290
AUG 22...	K66	<.100	.050	.45	.50	.080
SEP 06...	110	<.100	.040	.56	.60	.040

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼SW¼ sec.19, T.3 N., R.6 E., Fremont County, Hydrologic Unit 10080005, 1.2 mi upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft and 5.0 mi west of Shoshoni.

DRAINAGE AREA.--418 mi^2, of which 133 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Water years 1948 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT 11...	1300	185	1710	11.5	410	110	34	240	5	3.8	180
NOV 25...	0900	133	1930	.0	480	130	37	280	6	2.7	260
JAN 04...	1350	63	2070	.0	490	130	39	290	6	4.1	290
MAR 30...	1100	62	2180	4.0	590	160	46	290	5	4.6	250
APR 23...	1210	210	--	10.0	--	--	--	--	--	--	--
MAY 16...	1310	296	--	16.0	--	--	--	--	--	--	--
JUN 12...	1345	590	744	15.0	200	56	14	85	3	2.5	130
JUL 27...	1215	619	--	19.0	--	--	--	--	--	--	--
AUG 29...	0910	428	--	18.0	--	--	--	--	--	--	--
SEP 06...	0725	459	--	18.0	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 11...	680	19	.70	5.1	1200	1.6	600	1.8	.040	114	57
NOV 25...	810	20	.60	16	1500	2.0	521	2.2	.010	140	50
JAN 04...	820	22	.50	6.0	1500	2.0	253	2.4	.060	132	22
MAR 30...	940	27	.70	6.4	1600	2.2	272	2.1	.100	144	24
APR 23...	--	--	--	--	--	--	--	--	--	410	232
MAY 16...	--	--	--	--	--	--	--	--	--	313	250
JUN 12...	210	8.1	.30	9.8	460	.63	739	.50	.080	526	838
JUL 27...	--	--	--	--	--	--	--	--	--	412	689
AUG 29...	--	--	--	--	--	--	--	--	--	156	180
SEP 06...	--	--	--	--	--	--	--	--	--	114	141

06258000 MUDDY CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°17'10", long 108°16'30", in NE¼NW¼ sec.34, T.4 N., R.5 E., Fremont County, Hydrologic Unit 10080005, 2.5 mi upstream from normal wigh-water line of Boysen Reservoir at elevation 4,725 ft and 9.0 mi northwest of Shoshoni.

DRAINAGE AREA.--332 mi².

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT												
11...	1100	19	2480	9.0	830	200	81	310	5	4.3	247	1200
NOV												
25...	0945	11	3010	.0	930	190	110	380	6	5.4	280	1500
JAN												
04...	1545	3.7	4130	.0	1300	300	140	580	7	7.7	400	2100
MAR												
30...	1000	11	--	3.0	--	--	--	--	--	--	--	--
APR												
23...	1130	52	--	8.0	--	--	--	--	--	--	--	--
MAY												
16...	1340	149	--	15.0	--	--	--	--	--	--	--	--
JUN												
12...	1430	162	--	15.0	--	--	--	--	--	--	--	--
JUL												
27...	1145	115	--	20.5	--	--	--	--	--	--	--	--
AUG												
22...	0935	124	--	18.0	--	--	--	--	--	--	--	--
SEP												
06...	0700	38	--	10.0	--	--	--	--	--	--	--	--

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT											
11...	33	1.7	13	2000	2.7	102	1.1	290	50	198	10
NOV											
25...	45	1.9	11	2400	3.3	68	1.1	360	40	125	3.5
JAN											
04...	66	2.2	15	3500	4.7	34	1.8	450	80	146	1.5
MAR											
30...	--	--	--	--	--	--	--	--	--	293	8.7
APR											
23...	--	--	--	--	--	--	--	--	--	1070	150
MAY											
16...	--	--	--	--	--	--	--	--	--	2150	863
JUN											
12...	--	--	--	--	--	--	--	--	--	3060	1340
JUL											
27...	--	--	--	--	--	--	--	--	--	1120	348
AUG											
22...	--	--	--	--	--	--	--	--	--	970	325
SEP											
06...	--	--	--	--	--	--	--	--	--	204	21

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY

LOCATION.--Lat 43°25'30", long 108°10'42", in NW¼SW¼ sec.9, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 0.6 mi downstream from Boysen Dam and 13 mi north of Shoshoni.

DRAINAGE AREA.--7,701 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,608.58 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Boysen Reservoir (station number 06258900) since October 1951. Natural flow also affected by Bull Lake, Pilot Butte Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft, and diversions for irrigation of about 196,000 acres above station.

AVERAGE DISCHARGE.--33 years, 1,448 ft³/s, 1,049,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s, July 7, 1967, gage height, 13.35 ft; minimum daily, 4.7 ft³/s, Apr. 3, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,840 ft³/s, May 30, gage height, 7.62 ft; minimum daily, 930 ft³/s, Mar. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1980	1990	960	1070	1080	1090	1400	1540	3390	1430	3020	1860
2	1980	2000	947	1070	1080	1100	1400	1540	3410	1390	3030	1900
3	1980	2000	950	1080	1080	1090	1400	1650	3430	1340	3160	1910
4	1980	1990	957	1080	1080	1090	1390	1770	3250	1340	3380	1850
5	1990	1990	951	1080	1080	1080	1390	1770	2900	1350	3380	1810
6	1990	2020	951	1090	1080	1080	1390	1760	2780	1350	2750	1740
7	2000	2000	958	1090	1090	1090	1400	1750	2780	1370	2400	1740
8	2000	1990	954	1090	1080	1080	1390	1750	2540	1390	2410	1740
9	1990	2000	1070	1100	1090	1080	1390	2140	2370	1300	2420	1800
10	1990	2000	1130	1090	1090	1250	1380	2300	2360	1170	2220	1790
11	1960	2000	1130	1090	1100	1320	1500	2300	2370	1330	1870	1790
12	1400	2000	1100	1090	1080	1320	1570	2300	2380	1480	1860	1800
13	1860	2000	1090	1090	1080	1310	1570	2300	2380	1630	1820	1810
14	1990	2000	1090	1080	1090	1100	1560	2300	2390	1660	1800	1820
15	1990	1990	1090	1070	1080	930	1550	2300	2370	1650	1800	1850
16	1990	1990	1100	1080	1080	1200	1550	2300	2360	1640	1800	1820
17	1990	2000	1100	1090	1090	1320	1560	2310	2350	1650	1790	1830
18	1990	2000	1090	1080	1090	1320	1550	2320	2340	1520	1830	1680
19	1980	2000	1100	1080	1080	1320	1550	2320	2220	1320	1850	1320
20	1980	2000	1110	1090	1080	1370	1580	2320	1700	1230	1850	1420
21	1980	1990	1080	1090	1080	1330	1560	2330	1530	1240	1850	1560
22	1980	2000	1070	1090	1070	1390	1550	2510	1550	1240	1830	1580
23	1340	1990	1070	1080	1080	1400	1570	2740	1540	1220	1830	1590
24	1600	1990	1080	1080	1060	1400	1570	2750	1530	1450	1870	1580
25	2000	1990	1080	1080	1090	1390	1580	2760	1540	2270	1900	1590
26	1980	1990	1090	1070	1090	1400	1570	2770	1520	2700	1880	1710
27	1980	1990	1090	1070	1080	1390	1570	3050	1540	3030	1830	1760
28	1980	1500	1080	1070	1070	1390	1560	3210	1550	3030	1810	1750
29	1980	940	1070	1080	1070	1390	1570	3220	1560	3030	1830	1740
30	1980	936	1080	1080	---	1400	1570	3370	1410	3030	1820	1740
31	1980	---	1080	1090	---	1400	---	3400	---	3020	1850	---
TOTAL	59790	57276	32698	33560	31370	38820	45140	73150	67340	53800	66740	51880
MEAN	1929	1909	1055	1083	1082	1252	1505	2360	2245	1735	2153	1729
MAX	2000	2020	1130	1100	1100	1400	1580	3400	3430	3030	3380	1910
MIN	1340	936	947	1070	1060	930	1380	1540	1410	1170	1790	1320
AC-FT	118600	113600	64860	66570	62220	77000	89540	145100	133600	106700	132400	102900

CAL YR 1983 TOTAL 807758 MEAN 2213 MAX 7690 MIN 857 AC-FT 1602000
WTR YR 1984 TOTAL 611564 MEAN 1671 MAX 3430 MIN 930 AC-FT 1213000

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1953 to September 1954, December 1960 to September 1981.
WATER TEMPERATURES: December 1953 to September 1954, December 1960 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,380 micromhos June 18, 1954; minimum daily, 367 micromhos July 1, 1976.
WATER TEMPERATURES: Maximum, 22.0°C on several days in 1961, 1970, 1971; minimum, 0.0°C Jan. 6-9, 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 04...	1300	2040	495	8.0	15.0	8.7	104	<1	K7	170
NOV 02...	1025	2040	610	8.2	12.0	9.3	103	<1	--	170
DEC 07...	1240	954	595	8.1	1.0	12.0	101	<1	K4	190
JAN 05...	1000	1040	640	8.0	3.0	11.6	102	<1	--	200
FEB 01...	1015	1110	630	8.0	1.0	12.1	101	<1	K7	210
MAR 07...	1020	1080	650	8.0	3.5	11.1	100	<1	--	190
APR 04...	1000	1420	770	8.1	4.0	11.3	103	<1	K14	220
MAY 02...	1105	1550	800	8.2	6.0	10.4	101	<1	--	240
JUN 05...	1100	2660	780	8.1	15.0	8.4	102	<1	K17	220
JUL 05...	1200	1400	580	8.2	19.0	9.5	123	<1	--	190
AUG 02...	1115	3080	640	8.0	18.0	8.2	103	<1	K8	200
SEP 05...	1200	1940	490	8.3	16.5	7.0	86	<1	--	190

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 04...	45	14	44	2	2.3	117	140	5.9	.20	9.4
NOV 02...	44	14	47	2	2.2	124	150	5.6	.30	8.4
DEC 07...	50	15	51	2	2.4	129	160	6.3	.30	8.6
JAN 05...	51	17	54	2	2.2	138	180	6.6	.30	9.1
FEB 01...	55	18	56	2	2.5	142	180	6.9	1.4	8.7
MAR 07...	48	16	48	2	2.1	149	180	6.9	.30	7.8
APR 04...	57	19	59	2	2.6	154	200	7.4	.40	9.5
MAY 02...	61	21	68	2	2.5	156	220	8.8	.40	9.2
JUN 05...	57	19	61	2	2.5	131	200	7.8	.30	10
JUL 05...	50	17	51	2	2.5	120	170	6.9	.30	9.4
AUG 02...	50	17	50	2	2.1	119	160	6.4	.30	9.9
SEP 05...	50	16	51	2	2.2	119	160	5.9	.30	10

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)
OCT									
04...	328	330	.45	1810	--	<.10	--	.080	.10
NOV									
02...	354	350	.48	1950	.10	.14	.100	--	--
DEC									
07...	369	370	.50	950	--	.14	--	.120	.15
JAN									
05...	408	400	.55	1150	.10	1.9	.050	--	--
FEB									
01...	400	410	.54	1200	--	.13	--	.070	.09
MAR									
07...	413	400	.56	1200	1.2	.11	.070	--	--
APR									
04...	448	450	.61	1720	--	.19	--	.050	.06
MAY									
02...	471	480	.64	1970	.20	.20	.020	--	--
JUN									
05...	431	440	.59	3100	--	--	--	--	--
JUL									
05...	385	380	.52	1460	.10	<.10	.040	--	--
AUG									
02...	380	370	.52	3160	--	.23	--	.070	.09
SEP									
05...	372	370	.51	1950	.10	<.10	.030	--	--

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT									
04...	--	1.2	.040	.010	.020	.06	7	39	93
NOV									
02...	.30	.40	.040	--	--	--	--	--	--
DEC									
07...	--	1.0	.020	.010	.030	.09	4	10	85
JAN									
05...	--	<.20	<.010	--	--	--	--	--	--
FEB									
01...	--	.50	.010	.010	.020	.06	17	51	63
MAR									
07...	--	<.20	.020	--	--	--	--	--	--
APR									
04...	--	.50	.030	.020	.040	.12	32	123	85
MAY									
02...	--	<.20	.020	--	--	--	--	--	--
JUN									
05...	--	--	--	--	--	--	7	50	89
JUL									
05...	.36	.40	.020	--	--	--	--	-	--
AUG									
02...	--	.20	.020	.020	<.010	--	26	216	91
SEP									
05...	--	<.20	.020	--	--	--	--	--	--

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT											
04...	1300	10	1	60	<.5	2	<1	<3	2	6	3
FEB											
01...	1015	20	3	70	<.5	<1	<1	<3	<1	6	<1
JUN											
05...	1100	20	<1	63	2.0	3	<1	5	4	18	<1
AUG											
02...	1115	20	<1	59	1.0	<1	<1	<3	2	7	<1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
04...	17	2	<.1	<10	2	1	<1	430	<6	9
FEB										
01...	26	2	<.1	<10	4	<1	<1	530	<6	16
JUN										
05...	45	<1	<.1	10	<1	<1	<1	580	6	18
AUG										
02...	27	2	<.1	<10	6	<1	<1	500	<6	<3

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY

LOCATION.--Lat 43°40'01", long 108°51'18", in sec.28, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 0.2 mi upstream from normal high-water line of Anchor Reservoir, 1.6 mi upstream from Anchor Dam, 2.6 mi southwest of Anchor, and 33 mi west of Thermopolis.

DRAINAGE AREA.--85.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to May 1932, August 1939 to September 1943 (no winter records except 1941 water year), April 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 6,453.11 ft, National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Aug. 11, 1965. Aug. 11, 1965, to Nov. 3, 1968, at present site and datum. Nov. 4, 1968, to June 5, 1970, at site 0.7 mi upstream on left bank at datum 51.36 ft higher. June 6, 1970, to Sept. 30, 1972, at site 0.7 mi upstream on right bank at datum 51.22 ft higher. Oct. 1, 1972, to June 5, 1978, at site 0.7 mi upstream on left bank at datum 51.36 ft higher.

REMARKS.--Records good except those for November through April, which are poor. No diversion above station.

AVERAGE DISCHARGE.--26 years (water years 1941, 1960-84), 34.7 ft³/s, 25,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s, July 25, 1941, gage height, 8.73 ft, site and datum then in use, from rating curve extended above 640 ft³/s on basis of slope-area measurement of peak flow; no flow Jan. 10-17, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	2100	286	2.03	May 30	2300	406	2.52
May 20	2000	301	2.10	June 15	2400	*415	*2.56
May 24	0100	263	1.92				

Minimum daily discharge, 2.4 ft³/s, May. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	10	5.6	4.2	5.0	3.4	2.5	12	205	114	42	18
2	14	10	6.0	4.1	5.0	3.5	2.5	12	108	117	40	17
3	14	10	6.3	4.2	5.0	3.5	2.5	12	99	109	26	14
4	12	10	6.6	4.4	4.8	3.5	2.5	12	78	99	25	13
5	12	10	6.4	4.4	4.5	3.6	2.5	10	78	102	24	10
6	12	9.5	6.8	4.5	4.4	3.6	2.5	8.0	78	89	22	12
7	12	10	7.0	4.7	4.3	3.7	2.5	8.9	63	88	20	14
8	12	9.6	7.0	4.7	4.2	3.8	2.5	8.1	58	92	23	11
9	12	7.7	7.0	4.7	4.1	3.8	2.5	13	52	75	26	10
10	13	7.0	7.0	4.7	3.9	3.8	2.5	15	50	62	29	9.6
11	12	7.2	7.0	4.7	3.7	3.9	2.5	16	47	59	29	9.6
12	12	7.2	7.0	4.7	3.6	4.0	2.5	36	49	62	29	11
13	12	7.0	7.0	4.3	3.6	4.0	2.6	65	67	57	28	9.6
14	12	7.0	7.0	4.0	3.6	4.0	2.9	138	193	52	20	8.9
15	13	7.0	6.6	3.8	3.7	3.8	3.2	211	301	45	27	8.9
16	11	7.4	6.2	3.8	3.5	3.7	3.5	203	284	43	27	8.9
17	11	7.0	6.0	3.8	3.5	3.5	5.3	110	201	47	24	8.9
18	11	7.4	5.8	3.6	3.3	3.4	11	94	163	48	26	8.1
19	9.5	7.4	5.6	3.7	3.1	3.2	14	107	187	44	44	7.3
20	11	7.0	5.6	3.8	3.0	3.0	13	189	207	42	24	7.3
21	12	6.4	5.0	4.0	3.1	2.7	13	171	207	42	20	8.1
22	11	5.8	4.9	4.3	3.2	2.7	12	89	197	52	30	7.3
23	11	5.6	4.5	4.9	3.3	2.7	13	117	154	68	29	10
24	11	6.0	4.0	5.2	3.4	2.7	13	189	159	50	28	11
25	10	6.6	4.1	5.2	3.4	2.7	13	89	167	49	26	9.6
26	11	7.1	4.2	5.4	3.4	2.7	12	62	173	43	26	10
27	10	7.1	4.3	5.6	3.4	2.6	11	49	168	40	25	14
28	9.6	6.8	4.4	5.6	3.4	2.4	10	57	163	36	24	11
29	9.9	6.2	4.2	5.4	3.4	2.5	11	117	162	49	22	10
30	9.8	5.4	4.0	5.2	---	2.5	12	227	169	43	21	11
31	10	---	4.1	5.0	---	2.5	---	291	---	43	18	---
TOTAL	356.8	228.4	177.2	140.6	109.8	101.4	205.5	2738.0	4287	1961	824	319.1
MEAN	11.5	7.61	5.72	4.54	3.79	3.27	6.85	88.3	143	63.3	26.6	10.6
MAX	14	10	7.0	5.6	5.0	4.0	14	291	301	117	44	18
MIN	9.5	5.4	4.0	3.6	3.0	2.4	2.5	8.0	47	36	18	7.3
AC-FT	708	453	351	279	218	201	408	5430	8500	3890	1630	633

CAL YR 1983 TOTAL 15203.9 MEAN 41.7 MAX 465 MIN 2.8 AC-FT 30160
WTR YR 1984 TOTAL 11448.8 MEAN 31.3 MAX 301 MIN 2.4 AC-FT 22710

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT				
11...	1200	13	125	5.0
NOV				
22...	1130	5.8	200	.0
JAN				
0[illegible]...	1200	4.7	175	.0
FEB				
01...	1140	5.2	190	.0
24...	1315	3.8	195	.0
APR				
05...	1400	2.5	190	.5
MAY				
09...	1320	10	180	3.5
16...	1245	189	90	6.0
JUN				
05...	1300	80	80	6.0
18...	1500	133	99	8.0
JUL				
12...	1130	52	110	13.0
AUG				
17...	1120	24	105	16.0
SEP				
10...	1410	9.9	140	13.0

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY

LOCATION.--Lat 43°39'57", long 108°47'34", in sec.25, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 1.6 mi downstream from Anchor Dam and 30 mi west of Thermopolis.

DRAINAGE AREA.--131 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,120 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Anchor Dam (see station 06260300). No diversion above station.

AVERAGE DISCHARGE.--25 years, 22.1 ft³/s, 16,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 373 ft³/s, May 26, 1967, gage height, 3.64 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 225 ft³/s, June 5, gage height, 3.59 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	7.7	.00	.00	.00	.40	.40	5.6	53	161	36	11
2	13	7.5	.10	.60	.00	.40	.60	5.6	148	156	36	9.9
3	12	7.5	.10	1.0	.30	.30	.80	5.6	200	147	35	9.5
4	12	7.5	.00	1.2	.20	.20	.90	5.6	191	137	31	9.1
5	12	7.5	.00	1.4	.00	.10	1.5	5.6	208	131	28	8.5
6	11	7.4	.00	1.4	.00	.10	1.5	5.5	207	127	28	8.2
7	10	5.4	.00	1.4	.00	.20	1.4	3.9	195	121	26	9.9
8	10	5.0	.00	1.2	.00	.25	1.4	.03	191	108	24	9.6
9	10	2.0	.20	1.0	.40	.30	1.3	3.0	175	102	21	8.6
10	12	1.4	.40	.60	.20	.35	1.3	17	145	93	20	8.0
11	11	1.7	.40	.20	.00	.40	1.3	17	97	84	18	7.6
12	10	3.5	.20	.00	.00	.45	1.2	20	47	78	18	7.5
13	11	2.5	.00	.00	.10	.50	1.3	23	51	69	21	7.3
14	11	1.2	.00	.00	.00	.55	1.6	26	107	65	24	17
15	11	1.4	.00	.00	.00	.45	1.9	20	144	56	21	7.3
16	8.5	1.6	.00	.00	.00	.45	6.0	13	142	48	18	7.2
17	8.9	1.2	.00	.00	.00	.45	10	14	149	45	19	6.6
18	9.0	1.4	.00	.00	.00	.45	17	14	152	42	22	6.0
19	7.1	1.0	.00	.00	.10	.50	20	14	152	37	26	5.8
20	5.6	.00	.00	.00	.30	.60	20	14	151	35	25	5.8
21	7.0	.00	.00	.00	.60	.50	13	15	147	35	23	5.4
22	7.6	.00	.00	.00	1.0	.40	6.5	15	148	39	22	6.8
23	7.7	.00	.00	.00	.90	.30	6.3	15	147	43	20	9.2
24	10	.00	.00	.10	.80	.40	6.5	16	147	46	19	8.5
25	9.6	.10	.00	.20	.60	.40	6.6	64	153	45	17	5.5
26	8.5	.00	.00	.00	.40	.40	6.0	139	185	43	15	8.3
27	8.4	.00	.00	.00	.20	.40	5.6	137	172	39	14	12
28	7.3	.10	.00	.20	.10	.20	4.0	137	157	33	13	8.9
29	7.5	.10	.00	.00	.20	.30	2.5	121	158	36	12	6.5
30	7.7	.00	.00	.00	---	.30	1.9	41	167	39	11	9.1
31	7.7	---	.00	.00	---	.40	---	43	---	38	11	---
TOTAL	297.1	74.70	1.40	10.50	6.40	11.40	150.30	975.43	4486	2278	674	250.6
MEAN	9.58	2.49	.045	.34	.22	.37	5.01	31.5	150	73.5	21.7	8.35
MAX	13	7.7	.40	1.4	1.0	.60	20	139	208	161	36	17
MIN	5.6	.00	.00	.00	.00	.10	.40	.03	47	33	11	5.4
AC-FT	589	148	2.8	21	13	23	298	1930	8900	4520	1340	497

CAL YR 1983 TOTAL 8627.61 MEAN 23.6 MAX 136 MIN .00 AC-FT 17110
WTR YR 1984 TOTAL 9215.83 MEAN 25.2 MAX 208 MIN .00 AC-FT 18280

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT				
11...	1000	11	130	4.5
NOV				
22...	1330	.00	--	--
JAN				
09...	1500	1.5	185	.0
FEB				
01...	1400	.00	--	--
24...	1030	.88	240	.0
APR				
05...	1030	.96	270	.5
MAY				
09...	1030	.00	--	--
JUN				
05...	1545	229	75	11.0
18...	1315	152	125	9.5
JUL				
12...	1000	80	124	14.0
AUG				
17...	0930	18	120	16.0
SEP				
10...	1150	7.9	140	13.5

06264700 BIGHORN RIVER AT LUCERNE, WY

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, at bridge on Black Mountain road, 0.7 mi upstream from Kirby Creek, 0.8 mi east of Lucerne, and 1.0 mi downstream from Owl Creek.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
04...	0900	1960	610	8.3	14.0	10.2	117
NOV							
18...	0900	2040	740	8.2	4.0	12.4	110
FEB							
13...	0730	1540	700	8.0	1.0	12.5	101
MAR							
26...	0710	1150	920	8.1	2.0	12.2	102
JUN							
18...	1730	2290	740	8.0	16.0	9.3	108
29...	1115	1150	940	8.2	18.0	9.0	109
JUL							
11...	1555	1010	670	8.5	19.5	8.3	104
AUC							
06...	0800	2940	550	8.1	22.0	7.4	97
14...	1330	1480	660	8.4	220	8.4	3640
30...	1430	1700	610	8.4	22.0	8.3	109

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
04...	160	.100	.040	1.2	1.2	.040
NOV						
18...	170	.100	.070	.73	.80	.020
FEB						
13...	120	<.100	.140	.26	.40	.010
MAR						
26...	1600	<.100	.060	.64	.70	.100
JUN						
18...	K63	.200	<.010	--	1.0	.040
29...	290	.300	<.010	--	.50	.060
JUL						
11...	73	<.100	.060	.44	.50	.020
AUG						
06...	470	.100	.040	.56	.60	.050
14...	570	.100	.080	.32	.40	.020
30...	190	<.100	.060	--	<.20	.020

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY

LOCATION.--Lat 43°54'55", long 107°55'46", in SE¼NE¼ sec.31, T.46 N., R.92 W., Washakie County, Hydrologic Unit 10080007, on left bank 50 ft upstream from county road, 1.8 mi upstream from mouth, 5.2 mi southeast of Colter, and 7.0 mi south of Worland.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR WY-75-1: 1972-73.

GAGE.--Water-stage recorder. Altitude of gage is 4,165 ft, from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 4.86 ft³/s, 3,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s, May 18, 1978, gage height, 6.65 ft; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)
Mar. 19	0600	*614	a*2.71	June 15	1000	344	2.10

a-from floodmark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	24	.00	2.5	1.5	.00
2	.00	.00	.00	.00	.00	.00	.00	.09	.00	.08	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.25	.00	.00	.00	19	.00	6.3	.00	.00	.00	.00
8	.00	1.0	.00	.00	.00	137	.00	14	.00	.00	.00	.00
9	.00	.50	.00	.00	.00	119	.00	4.1	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	128	.00	.68	.00	.00	.00	.00
11	.00	.00	.25	.00	.00	128	.00	.32	45	.54	.00	.00
12	.00	.00	.50	.00	.00	107	.00	.00	.36	.13	.00	.00
13	.00	.00	.00	.00	.00	107	.00	.00	.00	.00	.00	.00
14	.03	.00	.00	.00	.00	91	.00	.00	7.6	.00	.00	.00
15	18	.00	.00	.00	.00	99	.00	.00	112	.00	.00	.00
16	.01	.00	.00	.00	.00	87	.00	.00	.77	.00	.00	.00
17	.00	.00	.00	.00	.00	69	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	132	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	322	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	186	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	142	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	95	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	8.1	.00	.00	.00	.00	.00	16
24	.00	.00	.00	.00	.00	2.6	.00	.00	.00	.00	.00	99
25	.00	.00	.00	.00	.00	1.5	.44	.00	.00	.00	.00	124
26	.00	.00	.00	.00	.00	1.8	27	.00	.00	.00	.00	1.0
27	.00	.00	.00	.00	.00	1.5	34	.00	.00	.00	.00	7.2
28	.00	.00	.00	.00	.00	.32	2.6	.00	.00	.00	.00	.68
29	.00	.00	.00	.00	.00	.00	73	.00	.00	.00	.00	.24
30	.00	.00	.00	.00	---	.00	42	.00	.00	.00	.00	.01
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	18.04	1.75	.75	.00	.00	1983.82	179.04	50.79	165.73	3.25	1.50	248.13
MEAN	.58	.058	.024	.000	.000	64.0	5.97	1.64	5.52	.10	.048	8.27
MAX	18	1.0	.50	.00	.00	322	73	24	112	2.5	1.5	124
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	36	3.5	1.5	.00	.00	3930	355	101	329	6.4	3.0	492

CAL YR 1983 TOTAL 1499.58 MEAN 4.11 MAX 134 MIN .00 AC-FT 2970
WTR YR 1984 TOTAL 2652.80 MEAN 7.25 MAX 322 MIN .00 AC-FT 5260

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44"01'14", long 108°00'42", in NW¼NW¼NE¼ sec.27, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, on left bank 300 ft upstream from Bighorn Canal spillway, 2.0 mi upstream from mouth, and 2.8 mi west of Worland.

DRAINAGE AREA.--518 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1951 to December 1972, June 1978 to current year. Occasional measurements and annual maximum, January 1973 to May 1978.

GAGE.--Water-stage recorder. Altitude of gage is 4,070 ft, from topographic map. Prior to Oct. 1, 1956, at site 400 ft upstream at datum 7.52 ft higher. Oct. 1, 1956, to Sept. 30, 1969, at present site at datum 2.00 ft higher. Jan. 1, 1973, to May 31, 1978, crest-stage gage at present site and datum.

REMARKS.--Records fair. Bureau of Land Management has extensive spreader systems on some of the tributaries above station.

AVERAGE DISCHARGE.--27 years (water years 1952-72, 1979-84), 10.3 ft³/s, 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft³/s, May 18, 1978, gage height, 10.58 ft, from floodmarks, from rating curve extended above 1,700 ft³/s; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
June 16	1200	*410	*3.55

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.91	.00	.00	94	.00
2	.00	.00	.00	.00	.00	.00	.00	7.3	.00	.00	5.1	.00
3	.00	.00	.00	.00	.00	.00	.00	6.4	.00	.00	5.8	.00
4	.00	.00	.00	.00	.00	.00	.28	3.2	.00	.00	4.4	.00
5	.00	.00	.00	.00	.00	.00	.16	2.1	.00	.00	135	.00
6	.00	.00	.00	.00	.00	.01	.10	1.2	.00	.01	161	.00
7	.00	.00	.00	.00	.00	.10	.00	1.4	.00	.02	28	.00
8	.00	.00	.00	.00	.00	.70	.00	.20	.00	.00	7.4	.01
9	.00	.00	.00	.00	.00	2.0	.00	.10	.00	.00	1.9	.02
10	.01	.00	.00	.00	.00	10	.00	.02	.00	.00	.36	.02
11	.00	.00	.00	.00	.00	10	.00	.01	103	.00	.14	.02
12	.00	.00	.00	.00	.00	12	.00	.00	33	.00	.03	.02
13	.00	.00	.00	.00	.00	35	.00	.00	6.1	.00	.00	.02
14	.05	.00	.00	.00	.00	42	.00	.00	1.2	.00	.00	.02
15	1.3	.00	.00	.00	.00	33	.00	.00	.52	.00	.00	.02
16	.92	.00	.00	.00	.00	23	.00	.00	126	.00	.00	.02
17	.44	.00	.00	.00	.00	13	.00	.00	132	.00	.00	.02
18	.36	.00	.00	.00	.00	11	.00	.00	28	.00	.00	.02
19	.10	.00	.00	.00	.00	15	.00	.00	7.8	.00	.25	.02
20	.00	.00	.00	.00	.00	6.4	.00	.00	1.7	.00	.09	.02
21	.00	.00	.00	.00	.00	3.5	.00	.00	.52	.02	.00	.04
22	.00	.00	.00	.00	.00	15	.00	.00	.16	.07	.00	.07
23	.00	.00	.00	.00	.00	5.8	.00	.00	.08	.09	.00	50
24	.00	.00	.00	.00	.00	2.8	.00	.00	.01	15	.00	143
25	.00	.00	.00	.00	.00	1.0	.07	.00	.00	.33	.00	168
26	.00	.00	.00	.00	.00	.28	.10	.00	.00	.10	.00	145
27	.00	.00	.00	.00	.00	.13	.12	.00	.00	.09	.00	84
28	.00	.00	.00	.00	.00	.00	.12	.00	.00	.10	.00	39
29	.00	.00	.00	.00	.00	.00	.10	.00	.00	.13	.00	22
30	.00	.00	.00	.00	---	.00	.07	.00	.00	.43	.00	15
31	.00	---	.00	.00	---	.00	---	.00	---	1.4	.00	---
TOTAL	3.18	.00	.00	.00	.00	241.72	1.12	22.84	440.09	17.79	443.47	666.36
MEAN	.10	.000	.000	.000	.000	7.80	.037	.74	14.7	.57	14.3	22.2
MAX	1.3	.00	.00	.00	.00	42	.28	7.3	132	15	161	168
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	6.3	.00	.00	.00	.00	479	2.2	45	873	35	880	1320

CAL YR 1983 TOTAL 3075.91 MEAN 8.43 MAX 733 MIN .00 AC-FT 6100
WTR YR 1984 TOTAL 1836.57 MEAN 5.02 MAX 168 MIN .00 AC-FT 3640

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1949 to December 1972, June 1978 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: August 1949 to December 1972, June 1978 to current year.

INSTRUMENTATION.--Sediment pumping sampler since June 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L Apr. 16, 1952; minimum daily, no flow for many days each year.
SEDIMENT LOADS: Maximum daily, 418,000 tons, May 22, 1952; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 78,500 mg/L Aug. 10; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 25,500 tons, June 16; minimum daily, 0 tons on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR						
16...	1000	26	410	.5	6400	449
19...	0700	26	490	.5	5450	383
26...	1500	.29	625	9.0	--	--
APR						
06...	1000	E.10	640	5.0	786	--
MAY						
07...	0745	2.2	980	1.5	992	5.9
JUN						
11...	2000	145	990	9.0	72400	28300
12...	0630	40	900	8.0	61500	6640
JUL						
25...	0830	.36	610	15.5	18100	18
AUG						
01...	1920	11	385	16.5	34000	1010
SEP						
26...	1630	158	260	4.5	19300	8230

E-Estimate.

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAR				
16...	1000	96	97	98
JUN				
11...	2000	75	85	89
JUL				
25...	0830	98	99	99
AUG				
01...	1920	95	96	98

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SPECIFIC CONDUCTANCE, LABORATORY (MICROMHOS/CM AT 25 D, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	---	---	---	---	490	---
2						---	---	---	---	---	---	---
3						---	---	---	---	---	---	---
4						---	---	---	---	---	---	---
5						---	---	---	---	---	---	---
6						---	640	---	---	---	---	---
7						---	---	980	---	---	---	---
8						---	---	---	---	---	---	---
9						---	---	---	---	---	---	---
10						---	---	---	---	---	---	---
11						---	---	---	970	---	---	---
12						---	---	---	1020	---	---	---
13						---	---	---	---	---	---	---
14						---	---	---	---	---	---	---
15						---	---	---	---	---	---	---
16						360	---	---	1070	---	---	---
17						---	---	---	1050	---	---	---
18						---	---	---	930	---	---	---
19						490	---	---	---	---	---	---
20						---	---	---	---	---	---	---
21						---	---	---	---	---	---	---
22						---	---	---	---	---	---	---
23						---	---	---	---	---	---	400
24						---	---	---	---	450	---	400
25						---	---	---	---	610	---	380
26						625	---	---	---	---	---	410
27						---	---	---	---	---	---	360
28						---	---	---	---	---	---	360
29						---	---	---	---	---	---	---
30						---	---	---	---	---	---	---
31						---	---	---	---	---	---	---
MEAN						492	640	980	1010	530	490	385

WTR YR 1984 MEAN 631

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06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	.00	0	.00	.00	0	.00
7	.00	0	.00	.00	0	.00	.00	0	.00
8	.00	0	.00	.00	0	.00	.00	0	.00
9	.00	0	.00	.00	0	.00	.00	0	.00
10	.01	107	.01	.00	0	.00	.00	0	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.05	220	.03	.00	0	.00	.00	0	.00
15	1.3	3400	25	.00	0	.00	.00	0	.00
16	.92	3300	8.2	.00	0	.00	.00	0	.00
17	.44	1280	1.5	.00	0	.00	.00	0	.00
18	.36	730	.71	.00	0	.00	.00	0	.00
19	.10	480	.13	.00	0	.00	.00	0	.00
20	.00	0	.00	.00	0	.00	.00	0	.00
21	.00	0	.00	.00	0	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.00	0	.00	.00	0	.00	.00	0	.00
26	.00	0	.00	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	3.18	---	35.58	0.00	---	0.00	0.00	---	0.00
		JANUARY			FEBRUARY			MARCH	
1	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	.00	0	.00	.01	10	.00
7	.00	0	.00	.00	0	.00	.10	100	.03
8	.00	0	.00	.00	0	.00	.70	800	1.5
9	.00	0	.00	.00	0	.00	2.0	1500	8.1
10	.00	0	.00	.00	0	.00	10	4500	122
11	.00	0	.00	.00	0	.00	10	4500	122
12	.00	0	.00	.00	0	.00	12	5000	162
13	.00	0	.00	.00	0	.00	35	8500	803
14	.00	0	.00	.00	0	.00	42	9300	1050
15	.00	0	.00	.00	0	.00	33	7250	646
16	.00	0	.00	.00	0	.00	23	6160	383
17	.00	0	.00	.00	0	.00	13	4850	170
18	.00	0	.00	.00	0	.00	11	4570	136
19	.00	0	.00	.00	0	.00	15	5100	207
20	.00	0	.00	.00	0	.00	6.4	4500	78
21	.00	0	.00	.00	0	.00	3.5	4080	39
22	.00	0	.00	.00	0	.00	15	5650	275
23	.00	0	.00	.00	0	.00	5.8	4200	66
24	.00	0	.00	.00	0	.00	2.8	3110	24
25	.00	0	.00	.00	0	.00	1.0	2090	5.6
26	.00	0	.00	.00	0	.00	.28	1180	.89
27	.00	0	.00	.00	0	.00	.13	690	.24
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	---	---	---	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	0.00	---	0.00	0.00	---	0.00	241.72	---	4299.36

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	0	.00	.91	1200	8.6	.00	0	.00
2	.00	0	.00	7.3	4720	93	.00	0	.00
3	.00	0	.00	6.4	4640	80	.00	0	.00
4	.28	1440	1.1	3.2	3600	31	.00	0	.00
5	.16	1000	.43	2.1	2610	15	.00	0	.00
6	.10	700	.19	1.2	1470	4.8	.00	0	.00
7	.00	0	.00	1.4	880	3.3	.00	0	.00
8	.00	0	.00	.20	500	.27	.00	0	.00
9	.00	0	.00	.10	250	.07	.00	0	.00
10	.00	0	.00	.02	70	.00	.00	0	.00
11	.00	0	.00	.01	20	.00	103	62700	20400
12	.00	0	.00	.00	0	.00	33	56300	5410
13	.00	0	.00	.00	0	.00	6.1	25000	412
14	.00	0	.00	.00	0	.00	1.2	16000	52
15	.00	0	.00	.00	0	.00	.52	12900	18
16	.00	0	.00	.00	0	.00	126	48900	25500
17	.00	0	.00	.00	0	.00	132	43300	19600
18	.00	0	.00	.00	0	.00	28	21000	1590
19	.00	0	.00	.00	0	.00	7.8	12500	263
20	.00	0	.00	.00	0	.00	1.7	5900	27
21	.00	0	.00	.00	0	.00	.52	2800	3.9
22	.00	0	.00	.00	0	.00	.16	1400	.60
23	.00	0	.00	.00	0	.00	.08	400	.09
24	.00	0	.00	.00	0	.00	.01	129	.00
25	.07	483	.12	.00	0	.00	.00	0	.00
26	.10	790	.21	.00	0	.00	.00	0	.00
27	.12	820	.27	.00	0	.00	.00	0	.00
28	.12	800	.26	.00	0	.00	.00	0	.00
29	.10	600	.16	.00	0	.00	.00	0	.00
30	.07	185	.05	.00	0	.00	.00	0	.00
31	---	---	---	.00	0	.00	---	---	---
TOTAL	1.12	---	2.79	22.84	---	236.04	440.09	---	73276.59
		JULY			AUGUST			SEPTEMBER	
1	.00	0	.00	94	43000	14100	.00	0	.00
2	.00	0	.00	5.1	31900	439	.00	0	.00
3	.00	0	.00	5.8	30900	509	.00	0	.00
4	.00	0	.00	4.4	24400	327	.00	0	.00
5	.00	0	.00	135	43400	15800	.00	0	.00
6	.01	375	.02	161	47800	20800	.00	0	.00
7	.02	1920	.10	28	36600	2770	.00	0	.00
8	.00	0	.00	7.4	27200	567	.01	2010	.05
9	.00	0	.00	1.9	21900	112	.02	2690	.15
10	.00	0	.00	.36	78500	76	.02	2700	.15
11	.00	0	.00	.14	13100	5.0	.02	2700	.15
12	.00	0	.00	.03	2080	.22	.02	2700	.15
13	.00	0	.00	.00	0	.00	.02	2700	.15
14	.00	0	.00	.00	0	.00	.02	2700	.15
15	.00	0	.00	.00	0	.00	.02	2700	.15
16	.00	0	.00	.00	0	.00	.02	2700	.15
17	.00	0	.00	.00	0	.00	.02	2700	.15
18	.00	0	.00	.00	0	.00	.02	2700	.15
19	.00	0	.00	.25	10400	9.2	.02	2700	.15
20	.00	0	.00	.09	7000	1.7	.02	2700	.15
21	.02	217	.02	.00	0	.00	.04	3000	.32
22	.07	800	.15	.00	0	.00	.07	3670	.69
23	.09	900	.22	.00	0	.00	50	20900	4140
24	15	17000	895	.00	0	.00	143	34900	13500
25	.33	17800	16	.00	0	.00	168	18800	8530
26	.10	15900	4.3	.00	0	.00	145	18200	7130
27	.09	15000	3.6	.00	0	.00	84	4730	1070
28	.10	14800	4.0	.00	0	.00	39	4580	482
29	.13	14900	5.2	.00	0	.00	22	4400	261
30	.43	15700	20	.00	0	.00	15	4300	174
31	1.4	17600	67	.00	0	.00	---	---	---
TOTAL	17.79	---	1015.61	443.47	---	55516.12	666.36	---	35289.86
YEAR	1836.57		169671.95						

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06268600 BIGHORN RIVER AT WORLAND, WY

LOCATION.--Lat 44°00'53", long 107°58'08", in SW¼NE¼ sec.25, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, 40 ft downstream from former gaging station, at bridge on U.S. Highway 20 at Worland, and 0.5 mi downstream from Fifteen Mile Creek.

DRAINAGE AREA.--10,810 mi².

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
04...	1100	1700	690	14.5	220	55	19	65	2	2.9
NOV										
18...	1105	2080	747	4.0	230	57	21	74	2	2.0
FEB										
27...	1130	1240	897	2.5	280	70	25	85	2	4.1
APR										
04...	1300	1420	934	7.5	300	72	29	92	2	3.2
MAY										
07...	1200	1450	999	6.5	300	75	28	100	3	3.4
JUL										
05...	0725	216	894	18.0	280	70	26	92	2	3.5
12...	1525	156	854	29.0	240	59	22	110	3	3.1
AUG										
10...	0730	897	797	16.5	270	72	23	80	2	3.1
SEP										
06...	1520	498	746	18.0	240	61	22	71	2	2.6

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
04...	140	200	11	.40	9.3	450	.61	2050	.200	.000
NOV										
18...	150	230	14	.40	6.8	500	.67	2780	.000	.000
FEB										
27...	170	280	20	.40	5.8	590	.81	1980	.100	.020
APR										
04...	180	300	18	1.2	7.6	630	.86	2420	.000	.020
MAY										
07...	180	330	15	.40	9.5	670	.91	2620	.400	.040
JUL										
05...	170	290	17	.30	6.8	610	.83	354	.800	.050
12...	160	270	14	.30	7.6	580	.79	245	.500	.010
AUG										
10...	180	250	14	.40	12	560	.76	1360	.600	.030
SEP										
06...	160	230	16	.40	14	510	.70	690	.200	.000

06268640 SLICK CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°03'30", long 107°55'59", in NE¼NW¼SE¼ sec.7, T.47 N., R.92 W., Washakie County, Hydrologic Unit 10080007, at bridge on U.S. Highway 16-20, 0.4 mi upstream from mouth, and 2.5 mi northeast of Worland city limits.

PERIOD OF RECORD.--June 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 04...	1245	17	826	14.5	260	66	22	81	2	2.9
JAN 16...	1620	1.8	1560	.0	480	120	43	180	4	4.7
APR 04...	1420	1.9	1740	10.5	490	130	41	220	4	5.4
JUL 05...	1050	46	998	16.5	320	79	29	100	3	3.5

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 04...	170	230	9.9	.50	12	530	.72	24	1.40	.060
JAN 16...	330	460	27	.50	22	1100	1.4	5.1	5.90	.000
APR 04...	290	590	35	.60	17	1200	1.6	6.2	4.70	.020
JUL 05...	200	300	14	.30	13	660	.90	82	2.00	.060

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY

LOCATION.--Lat 44°00'48", long 107°25'39", in SW¼NW¼ sec.27, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, on right bank 1.7 mi southeast of Ten Sleep and 4.3 mi upstream from Tensleep Creek.

DRAINAGE AREA.--803 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to September 1943, March 1950 to December 1955 (published as Nowood Creek near Tensleep), October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft, from topographic map. May 6, 1938, to Sept. 30, 1943, nonrecording gage at site 200 ft downstream at different datum. Mar. 17, 1950, to Dec. 31, 1955, water-stage recorder at site 100 ft upstream at different datum.

REMARKS.--Records good except those for December to March, which are poor. Diversions for irrigation of about 550 acres above station.

AVERAGE DISCHARGE.--22 years (water years 1939-43, 1951-55, 1973-84), 118 ft³/s, 85,490 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft³/s, May 19, 1978, gage height, 12.94 ft; maximum gage height observed, 13.0 ft, Mar. 12, 13, 1942 (ice jam), site and datum then in use; minimum daily discharge, 0.70 ft³/s, Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 22	0030	552	6.24	Aug. 2	0030	1,150	8.29
May 17	0730	*3,080	*12.33				

Minimum daily discharge, 36 ft³/s, Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	85	64	48	45	124	125	218	677	226	88	41
2	67	84	63	50	45	128	127	247	609	167	520	40
3	70	83	63	47	45	132	130	291	539	138	327	36
4	77	84	64	47	45	136	128	352	642	124	155	36
5	79	82	65	47	45	140	126	333	571	122	116	39
6	79	82	65	46	47	140	127	315	505	121	98	44
7	80	85	65	45	50	142	144	309	456	111	87	48
8	74	93	65	43	54	144	170	289	427	106	73	48
9	73	94	66	41	58	144	166	277	426	108	61	50
10	77	89	68	39	60	146	177	296	434	106	54	54
11	81	87	69	41	64	148	152	376	474	105	53	57
12	80	90	71	41	67	152	139	430	510	97	52	59
13	80	91	70	41	70	154	133	634	399	88	52	59
14	86	90	66	42	72	164	124	1060	389	102	49	59
15	102	87	64	42	74	205	124	1430	387	81	51	61
16	96	87	63	41	75	270	119	2110	350	76	51	66
17	90	86	61	41	77	252	128	2860	341	68	47	69
18	89	87	58	40	76	213	150	2440	314	62	47	64
19	99	89	54	38	74	226	176	1750	293	61	47	57
20	93	88	52	37	74	248	216	1590	287	57	55	58
21	88	87	51	37	80	329	252	1640	185	58	57	60
22	86	88	49	37	92	416	215	1610	170	55	55	71
23	83	88	48	39	100	279	195	1230	155	56	55	86
24	89	88	47	40	102	279	197	1240	158	72	55	106
25	91	90	48	40	108	266	227	1350	162	76	54	111
26	90	94	49	41	112	219	249	994	162	74	56	108
27	88	84	49	40	118	180	220	874	162	60	56	108
28	88	76	48	41	119	153	183	799	140	53	49	119
29	88	76	47	44	120	140	183	712	130	52	42	119
30	84	76	47	43	---	133	211	696	163	49	40	119
31	83	---	47	44	---	131	---	692	---	51	40	---
TOTAL	2596	2590	1806	1303	2168	5933	5013	29444	10617	2782	2642	2052
MEAN	83.7	86.3	58.3	42.0	74.8	191	167	950	354	89.7	85.2	68.4
MAX	102	94	71	50	120	416	252	2860	677	226	520	119
MIN	66	76	47	37	45	124	119	218	130	49	40	36
AC-FT	5150	5140	3580	2580	4300	11770	9940	58400	21060	5520	5240	4070

CAL YR 1983 TOTAL 57345 MEAN 157 MAX 1010 MIN 29 AC-FT 113700
WTR YR 1984 TOTAL 68946 MEAN 188 MAX 2860 MIN 36 AC-FT 136800

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 03...	0930	72	956	11.0	490	130	41	29	.6	2.7
JAN 16...	1100	42	845	.0	450	120	36	17	.4	1.9
MAR 26...	1200	187	964	6.0	440	120	34	47	1	3.6
MAY 16...	0930	1910	456	9.5	180	51	13	11	.4	2.9
AUG 14...	0930	47	1090	18.0	560	150	45	45	.9	3.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 03...	190	340	2.8	.40	9.2	670	.91	130	.000	.000
JAN 16...	190	280	1.8	.30	13	580	.79	66	.900	.000
MAR 26...	160	350	4.0	.20	10	660	.90	336	.500	.370
MAY 16...	110	97	1.7	.10	6.7	250	.34	1290	.800	.470
AUG 14...	220	410	3.6	.30	11	800	1.1	102	.000	.020

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN 29...	0910	130	19.0	<.01	<.01	<.01	<.01	<.010	<.010
SEP 06...	1200	41	18.0	<.01	<.01	<.01	<.01	<.010	.010

BEST COPY AVAILABLE

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WY

LOCATION.--Lat 44°12'20", long 107°42'54", in SW¼SE¼NW¼ sec.19, T.49 N., R.90 W., Big Horn County, Hydrologic Unit 10080008, at bridge on county road, 0.5 mi south of State Secondary Highway 0201, 1.0 mi upstream from mouth, and 6.4 mi southwest of Hyattville.

DRAINAGE AREA.--376 mi^2, approximately.

PERIOD OF RECORD.--Water years 1951-53, 1968 to September 1984 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
03...	1045	39	946	10.0	490	140	33	36	.7	2.9

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
03...	200	330	3.6	.30	12	680	.92	71	.100	.040

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUN									
25...	1030	1380	7.0	<.01	<.01	<.01	<.01	<.010	<.010
SEP									
01...	0815	24	14.0	<.01	<.01	<.01	<.01	<.010	<.010

06274220 NOWOOD RIVER AT MANDERSON, WY

LOCATION.--Lat 44°16'34", long 107°57'35", in NE¼SW¼ sec.30, T.50 N., R.92 W., Big Horn County, Hydrologic Unit 10080008, at bridge on State Secondary Highway 0201, and 0.5 mi upstream from mouth near corporate limits of Manderson.

DRAINAGE AREA.--2,000 mi², approximately.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
03...	1130	116	1000	11.0	470	120	41	50	1	2.3
NOV										
14...	0800	258	880	3.5	420	110	35	38	.8	1.7
FEB										
17...	1030	176	843	.0	410	110	32	29	.6	1.8
MAY										
08...	1430	342	847	7.5	360	95	31	49	1	2.1
JUN										
25...	1200	1870	245	13.0	110	29	8.0	8.5	.4	.40
JUL										
06...	0740	970	380	19.0	170	45	14	17	.6	1.2
AUG										
10...	1200	141	1140	18.0	520	140	41	64	1	2.9
SEP										
01...	0720	72	1200	16.0	540	140	46	71	1	2.3

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
03...	180	370	4.8	.30	7.8	700	.96	221	.000	.000
NOV										
14...	170	310	3.6	.30	7.9	610	.83	424	.100	.150
FEB										
17...	190	270	3.2	.30	10	570	.78	271	.500	.050
MAY										
08...	160	300	3.4	.30	11	590	.80	543	.300	.050
JUN										
25...	70	53	1.4	.10	5.1	150	.20	745	.100	.020
JUL										
06...	89	100	1.4	.00	6.7	240	.32	625	.100	.010
AUG										
10...	190	430	6.9	.40	9.9	810	1.1	308	.000	.060
SEP										
01...	180	520	16	.20	11	910	1.2	178	.000	.000

06274300 BIGHORN RIVER AT BASIN, WY

LOCATION.--Lat 44°23'00", long 108°02'08", in SE¼NW¼NE¼ sec.21, T.51 N., R.93 W., Big Horn County, Hydrologic Unit 10080007, on left bank 10 ft downstream from county bridge on E Street, 0.2 mi northeast of Big Horn County Courthouse in Basin, and 1.8 mi downstream from Antelope Creek.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is 3821.29 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for December to March, which are poor. Diversions for irrigation of about 226,000 acres above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,460 ft^3/s, June 16, gage height, 7.46 ft; minimum daily discharge, 980 ft^3/s, Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2230	2440	1390	1480	1560	1520	1740	1540	6760	1700	4400	1470
2	2190	2490	1360	1490	1560	1530	1750	1560	6290	1630	3810	1510
3	2260	2490	1380	1500	1560	1550	1740	1650	5480	1620	4150	1570
4	2260	2470	1490	1510	1560	1510	1730	1760	5510	1640	4090	1570
5	2300	2470	1540	1520	1560	1500	1710	1870	5390	1610	4230	1540
6	2270	2450	1430	1540	1550	1500	1700	1890	5060	1640	4130	1550
7	2270	2470	1390	1550	1550	1500	1710	1870	4590	1590	3210	1560
8	2240	2520	1410	1560	1510	1510	1730	1810	4330	1560	2280	1550
9	2290	2560	1450	1580	1550	1510	1740	1780	3820	1630	2150	1570
10	2330	2560	1520	1590	1540	1580	1740	2090	3590	1550	2030	1600
11	2720	2560	1730	1550	1530	1680	1680	2560	4050	1280	1900	1580
12	2440	2590	1760	1570	1490	1760	1630	2820	4220	1130	1510	1610
13	1950	2620	1760	1570	1520	1860	1720	2930	3840	1310	1490	1610
14	1930	2560	1640	1540	1510	2060	1700	3350	4980	1420	1400	1610
15	2630	2510	1600	1530	1500	1780	1650	3910	6920	1550	1340	1630
16	2630	2480	1590	1550	1490	1830	1640	5360	8350	1470	1360	1660
17	2520	2500	1340	1550	1530	2160	1610	7120	7190	1390	1410	1650
18	2470	2520	1010	1550	1510	2000	1640	7260	5750	1350	1430	1650
19	2470	2520	1000	1540	1500	2150	1630	7490	5150	1320	1450	1640
20	2470	2520	990	1550	1500	2090	1690	6320	5050	1180	1530	1450
21	2430	2510	980	1560	1500	2220	1690	6190	4450	1110	1530	1250
22	2430	2520	1020	1560	1500	2470	1660	6040	4170	1110	1510	1570
23	2430	2360	1180	1540	1500	2470	1570	5320	3780	1200	1470	1860
24	2030	2280	1300	1550	1500	2090	1540	5380	3220	1360	1450	2600
25	1870	2430	1400	1550	1520	2070	1580	5800	3080	1300	1470	2680
26	2450	2570	1410	1510	1510	2080	1700	5240	3040	2240	1500	2900
27	2450	2440	1420	1510	1500	1900	1790	4590	2870	2910	1490	2990
28	2460	2380	1430	1510	1500	1820	1760	4550	2460	3340	1410	2870
29	2420	1880	1440	1530	1510	1770	1590	4530	1990	3390	1370	2580
30	2430	1490	1460	1530	---	1760	1570	4680	1770	3450	1380	2460
31	2450	---	1470	1560	---	1760	---	5680	---	3130	1390	---
TOTAL	72720	73160	43290	47730	44120	56990	50330	124940	137150	54110	65270	55340
MEAN	2346	2439	1396	1540	1521	1838	1678	4030	4572	1745	2105	1845
MAX	2720	2620	1760	1590	1560	2470	1790	7490	8350	3450	4400	2990
MIN	1870	1490	980	1480	1490	1500	1540	1540	1770	1110	1340	1250
AC-FT	144200	145100	85870	94670	87510	113000	99830	247800	272000	107300	129500	109800

WTR YR 1984 TOTAL 825150 MEAN 2255 MAX 8350 MIN 980 AC-FT 1637000

06274300 BIGHORN RIVER AT BASIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT 03...	1600	2510	710	8.5	14.0	9.0	99
NOV 17...	1300	2650	700	8.6	4.0	12.2	109
JAN 10...	1100	1550	740	8.3	.0	12.8	98
FEB 13...	1200	1480	780	8.3	.0	12.3	96
MAR 27...	1000	1930	1040	8.5	5.0	10.8	96
MAY 16...	1455	5400	880	7.5	8.0	10.2	98
JUN 25...	1530	3130	680	7.7	15.0	9.3	104
JUL 06...	0910	E1600	940	8.0	21.0	7.5	96
AUG 13...	1050	1500	960	8.2	17.0	9.3	109
SEP 04...	0930	1580	810	8.5	17.0	9.6	99

E-Estimate.

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 03...	380	.200	.040	1.2	1.2	.260
NOV 17...	160	.200	.050	.75	.80	.020
JAN 10...	270	.100	.020	.28	.30	.020
FEB 13...	180	.200	.340	.16	.50	.040
MAR 27...	570	.300	.090	1.9	2.0	.450
MAY 16...	K130	.500	.070	11	11	.050
JUN 25...	230	.400	<.010	--	1.0	.150
JUL 06...	290	.400	.090	1.0	1.1	.140
AUG 13...	400	.700	.080	.82	.90	.110
SEP 04...	240	.200	.050	.15	.20	.040

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06275000 WOOD RIVER AT SUNSHINE, WY

LOCATION.--Lat 44°02'15", long 108°58'24", in NW¼SW¼ sec.15, T.47 N., R.101 W., Park County, Hydrologic Unit 10080009, on right bank at bridge on county road, 1.0 mi downstream from Ernest May Ranch, 5.2 mi downstream from Dick Creek, and 10 mi southwest of Meeteetse.

DRAINAGE AREA.--194 mi², approximately.

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1309: 1947(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft, from topographic map. Prior to Sept. 18, 1952, and Oct. 28, 1953, to June 15, 1963, water-stage recorder at site 2.0 mi upstream at different datum. Sept. 18, 1952, to Oct. 27, 1953, nonrecording gage at site 2.0 mi upstream at different datum. June 16, 1963, to Aug. 13, 1967, water-stage recorder at site 1.4 mi upstream at different datum. Aug. 14 to Oct. 5, 1967, nonrecording gage at present site and datum.

REMARKS.--Records good except those for October to March, and June, which are poor. Water diverts above station to Lower Sunshine Reservoir since 1972. Diversion above station for irrigation of about 3,200 acres, of which about 1,000 acres are below station.

AVERAGE DISCHARGE.--27 years (water years 1946-72), prior to Lower Sunshine diversion, 117 ft³/s, 84,770 acre-ft/yr; 12 years (water years 1973-84), 97.8 ft³/s, 70,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s, June 15, 1963, gage height, 7.00 ft, from floodmark, site and datum then in use, from contracted-opening measurement of peak flow; maximum gage height, 7.98 ft, June 9, 1981; minimum daily discharge, 0.40 ft³/s, Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 910 ft³/s, May 15, gage height, 6.13 ft; minimum daily, 1.8 ft³/s, Oct. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	2.2	8.0	36	40	42	28	74	434	366	224	83
2	90	2.3	9.6	36	42	44	25	71	457	362	240	80
3	86	2.7	11	36	42	44	24	68	387	354	218	80
4	78	3.1	13	36	41	42	24	65	305	327	215	78
5	74	3.5	14	36	45	40	25	74	270	323	197	76
6	74	4.0	15	36	48	38	23	76	240	308	183	82
7	72	4.5	17	35	50	40	23	71	200	312	170	85
8	70	5.0	20	34	49	42	26	82	190	308	160	82
9	68	4.5	22	33	49	45	25	147	190	253	147	82
10	64	5.2	22	32	49	48	23	212	180	212	142	78
11	58	6.0	21	36	48	50	21	230	185	212	142	74
12	31	7.0	20	36	48	52	22	331	190	215	142	66
13	13	6.8	20	36	49	50	21	443	220	221	140	62
14	19	6.6	20	36	50	40	22	400	240	221	138	62
15	19	7.0	20	36	49	28	33	626	250	197	138	62
16	20	7.2	20	36	49	28	53	564	270	200	142	63
17	16	6.6	20	34	49	28	28	395	290	165	142	59
18	11	6.8	20	33	49	28	33	369	300	147	170	59
19	11	6.4	20	33	48	28	25	468	290	147	152	61
20	8.1	6.6	19	33	47	29	28	496	310	145	145	63
21	3.3	6.7	19	33	54	29	24	526	310	150	142	63
22	3.1	6.6	19	35	49	29	20	476	300	186	138	63
23	3.0	6.4	19	37	45	29	21	423	290	253	138	64
24	3.0	6.2	19	37	47	29	62	531	310	227	138	45
25	2.6	6.6	27	37	50	29	67	489	330	301	128	28
26	2.3	6.6	33	37	42	28	102	384	310	246	126	27
27	2.1	6.4	32	35	40	29	73	354	260	240	111	28
28	1.8	7.0	30	39	40	28	80	378	210	215	109	27
29	1.9	7.6	32	38	41	28	66	404	354	233	103	23
30	2.0	8.4	35	40	---	28	73	457	466	215	91	23
31	2.1	---	36	40	---	28	---	514	---	218	89	---
TOTAL	1001.3	172.5	652.6	1107	1349	1100	1120	10198	8538	7479	4660	1828
MEAN	32.3	5.75	21.1	35.7	46.5	35.5	37.3	329	285	241	150	60.9
MAX	92	8.4	36	40	54	52	102	626	466	366	240	85
MIN	1.8	2.2	8.0	32	40	28	20	65	180	145	89	23
AC-FT	1990	342	1290	2200	2680	2180	2220	20230	16940	14830	9240	3630

CAL YR 1983 TOTAL 46121.4 MEAN 126 MAX 1150 MIN 1.8 AC-FT 91480
WTR YR 1984 TOTAL 39205.4 MEAN 107 MAX 626 MIN 1.8 AC-FT 77760

06276500 GREYBULL RIVER AT MEETEETSE, WY

LOCATION.--Lat 44°09'20", long 108°52'35", in sec.4, T.48 N., R.100 W., Park County, Hydrologic Unit 10080009, on right bank at Meeteetse, 0.3 mi upstream from bridge on State Highway 120, and 3.0 mi upstream from Meeteetse Creek.

DRAINAGE AREA.--681 mi².

PERIOD OF RECORD.--June to December 1897, April to October 1903 (gage heights and discharge measurements only), July 1920 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1923(M), 1924, 1925(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,739.42 ft, National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Apr. 28, 1938. Apr. 28, 1938, to May 24, 1961, at site on left bank at datum 2.00 ft higher. May 25, 1961, to May 9, 1967, at site 100 ft downstream at present datum.

REMARKS.--Records fair. Some regulation by Sunshine Reservoir beginning May 1940, capacity, 52,990 acre-ft, and Lower Sunshine Reservoir beginning December 1972, capacity, 58,900 acre-ft. Diversions for irrigation of about 10,600 acres above station. Several diversions above station for irrigation below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1921-71), 347 ft³/s, 251,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, June 15, 1963, gage height, 9.20 ft, from floodmark, from rating curve extended above 4,600 ft³/s on basis of velocity-area study; minimum dailv, 16 ft³/s, Mar. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft³/s, May 31, gage height, 4.90 ft; minimum daily during period of operation, 60 ft³/s, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							60	152	1260	1100	670	620
2							60	170	934	900	680	620
3							64	170	840	860	670	610
4							64	166	740	840	650	630
5							64	194	740	800	600	640
6							72	210	898	840	494	600
7							70	266	810	940	470	600
8							78	296	720	1100	510	570
9							80	438	680	960	510	600
10							70	660	640	820	510	620
11							64	610	526	860	494	570
12							60	770	327	900	502	660
13							62	862	355	960	526	518
14							62	1030	790	980	550	534
15							80	1020	700	1000	610	560
16							100	1090	680	1050	620	580
17							85	810	760	1100	660	540
18							90	840	700	1100	660	494
19							76	970	640	1130	670	369
20							76	985	710	1200	620	383
21							70	1140	640	1050	580	383
22							66	946	690	900	570	422
23							60	934	610	800	534	266
24							90	1100	620	700	518	174
25							174	1030	700	660	534	138
26							174	874	910	590	570	163
27							279	780	940	640	526	149
28							156	800	960	620	510	111
29							80	1080	840	830	560	80
30							98	1200	900	580	570	80
31							---	1600	---	590	610	---
TOTAL							2684	23193	22260	27400	17758	13284
MEAN							89.5	748	742	884	573	443
MAX							279	1600	1260	1200	680	660
MIN							60	152	327	580	470	80
AC-FT							5320	46000	44150	54350	35220	26350

06277500 GREYBULL RIVER NEAR BASIN, WY

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼NW¼SW¼ sec.8, T.51 N., R.94 W., Big Horn County, Hydrologic Unit 10080009, at former gaging station, at bridge on State Secondary Highway 0200, 3.0 mi upstream from Dorsey Creek, and 8.0 mi west of Basin.

DRAINAGE AREA.--1,115 mi^2.

PERIOD OF RECORD.--Water years 1951-53, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 03...	1635	78	869	12.5	270	67	25	98	3	2.7
NOV 14...	0910	94	1020	3.0	370	88	36	100	2	2.8
FEB 13...	1500	221	727	.0	280	66	28	72	2	3.1
MAY 08...	1320	19	1250	5.0	370	91	35	150	3	2.9
JUN 25...	1800	59	784	19.5	210	54	19	88	3	2.3
JUL 06...	1045	32	1140	23.0	270	70	24	160	4	3.5
AUG 10...	1000	48	884	24.0	260	66	22	110	3	3.6
SEP 01...	0900	38	992	18.0	260	64	25	130	4	2.6

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 03...	250	210	6.9	.40	16	580	.78	121	.600	.230
NOV 14...	270	280	8.5	.50	13	690	.94	175	.300	.000
FEB 13...	190	220	6.1	.40	15	520	.71	313	.500	.190
MAY 08...	290	390	14	.40	15	870	1.2	45	.400	.040
JUN 25...	200	190	7.7	.40	14	500	.67	79	.600	.050
JUL 06...	250	350	12	.30	14	780	1.1	68	.700	.000
AUG 10...	260	210	16	.50	20	600	.82	78	.500	.120
SEP 01...	240	300	12	.40	23	700	.95	72	.600	.010

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUN 25...	1800	59	19.5	.22	<.01	<.01	<.01	.130	.010
JUL 06...	1045	32	23.0	.24	<.01	<.01	<.01	.300	.010
AUG 10...	1000	48	24.0	.07	<.01	<.01	<.01	.040	.010
SEP 01...	0900	38	18.0	.04	<.01	<.01	<.01	.020	.020

06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY

LOCATION.--Lat 44°30'29", long 107°24'11", in sec.1, T.52 N., R.88 W., Big Horn County, Hydrologic Unit 10080010, Bighorn National Forest, on right bank 0.2 mi upstream from Shell Reservoir, 1.1 mi downstream from Buckley Creek, 6.0 mi southeast of Shell Creek ranger station, and 19 mi east of Shell.

DRAINAGE AREA.--23.1 mi².

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1969, published as Shell Creek above Shell Creek Reservoir.

REVISED RECORDS.--WSP 1629: 1958. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,050 ft, from topographic map.

REMARKS.--Records good except those for November to April, which are poor. No diversions above station.

AVERAGE DISCHARGE.-28 years, 36.2 ft³/s, 26,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s, June 15, 1963, gage height, 7.84 ft, from floodmarks, from rating curve extended above 725 ft³/s on basis of velocity-area study; minimum daily, 0.60 ft³/s, Mar. 7, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	1600	501	4.99	June 15	2100	*846	*6.10
June 1	0100	561	5.21				

Minimum daily discharge, 1.3 ft³/s, Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	9.4	7.0	4.3	3.1	2.3	2.7	3.0	374	169	23	8.1
2	7.9	9.0	8.0	4.6	3.0	2.2	2.8	3.2	182	137	24	8.2
3	8.2	8.9	8.6	4.7	2.9	2.1	2.7	3.2	161	136	21	7.8
4	8.3	8.5	8.6	5.0	2.7	1.9	2.5	2.9	142	123	22	7.7
5	8.4	8.5	8.2	5.1	2.5	1.3	2.9	3.0	175	113	20	7.3
6	8.4	8.0	8.2	5.1	2.7	1.8	3.1	2.9	112	104	19	7.4
7	8.6	7.8	7.4	5.2	2.8	2.0	2.9	2.5	94	96	18	7.8
8	9.1	7.4	7.6	5.2	2.8	1.5	3.1	2.6	71	93	17	7.6
9	9.5	7.0	8.2	5.0	2.7	1.6	3.1	2.7	58	81	16	8.0
10	9.8	7.4	8.0	4.7	2.8	1.7	3.0	3.2	50	70	15	7.7
11	10	8.0	7.5	4.3	2.5	1.9	2.9	37	56	59	14	7.3
12	10	8.2	7.4	4.2	2.8	2.3	2.9	53	54	52	14	7.3
13	10	8.2	7.2	3.8	3.0	2.4	2.8	98	147	47	13	7.0
14	10	7.8	7.0	3.4	2.8	2.2	2.9	204	558	44	13	6.9
15	10	8.6	6.8	3.2	2.4	1.8	3.0	288	679	40	13	6.9
16	10	8.8	6.2	2.8	2.2	2.0	3.6	316	542	37	13	6.8
17	9.8	8.6	5.6	2.5	2.4	2.2	4.5	234	407	34	13	6.7
18	9.7	8.8	5.0	2.7	1.8	2.1	5.8	153	343	31	13	6.5
19	9.7	8.6	4.5	3.0	2.2	2.4	5.6	131	396	32	12	6.3
20	9.8	9.0	4.0	3.5	2.4	2.6	5.0	164	417	31	13	6.1
21	9.2	9.2	3.3	4.0	2.4	2.6	4.5	243	410	29	12	6.7
22	8.6	8.8	2.7	4.0	2.2	2.4	4.8	138	403	34	11	7.8
23	8.5	8.0	2.4	3.9	2.1	1.9	4.9	108	278	30	11	9.0
24	9.0	9.2	2.2	3.8	2.0	2.4	4.6	173	260	31	10	9.7
25	9.9	9.2	2.8	3.7	1.9	2.8	3.9	108	306	27	10	9.1
26	10	9.0	3.5	3.2	1.8	2.9	3.4	63	306	25	11	8.8
27	10	7.8	3.5	3.4	1.7	2.8	3.0	46	284	23	9.8	8.9
28	11	8.8	3.3	3.5	1.5	1.8	2.3	37	262	22	9.1	10
29	11	8.0	2.9	3.2	2.1	2.2	2.6	51	251	20	8.6	9.3
30	10	6.0	3.1	2.8	---	2.3	2.8	158	261	20	8.3	10
31	10	---	3.7	3.0	---	2.4	---	376	---	19	8.2	---
TOTAL	292.1	250.5	174.4	120.8	70.2	66.8	104.6	3208.2	8039	1809	435.0	234.7
MEAN	9.42	8.35	5.63	3.90	2.42	2.15	3.49	103	268	58.4	14.0	7.82
MAX	11	9.4	8.6	5.2	3.1	2.9	5.8	376	679	169	24	10
MIN	7.7	6.0	2.2	2.5	1.5	1.3	2.3	2.5	50	19	8.2	6.1
AC-FT	579	497	346	240	139	132	207	6360	15950	3590	863	466

CAL YR 1983 TOTAL 12272.0 MEAN 33.6 MAX 565 MIN 2.2 AC-FT 24340
WTR YR 1984 TOTAL 14805.3 MEAN 40.5 MAX 679 MIN 1.3 AC-FT 29370

06278500 SHELL CREEK NEAR SHELL, WY

LOCATION.--Lat 44°33'54", long 107°42'44", in SE¼SW¼ sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, on right bank 0.9 mi upstream from White Creek and 5.0 mi northeast of Shell.

DRAINAGE AREA.--145 mi².

PERIOD OF RECORD.--October 1940 to current year (no winter records since 1971). Prior to December 1940, monthly discharge only, published in WSP 1309.

REVISED RECORDS.--WSP 1239: 1941, 1945(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.05 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Some regulation by two small reservoirs, capacity, 3,650 acre-ft. Diversions above station for irrigation of about 80 acres below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1941-71), 119 ft³/s, 86,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft³/s, June 24, 1945, gage height, 7.49 ft, from rating curve extended above 1,600 ft³/s; minimum daily, 18 ft³/s, Mar. 5, 7, 1950, Jan. 30, 31, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
May 31	2300	1,040	4.85
June 16	0030	*1,590	5.55

Minimum daily discharge during period of operation, 31 ft³/s, Apr. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							32	42	810	430	124	99
2							32	40	514	352	130	97
3							32	40	468	343	118	96
4							33	40	419	319	122	93
5							34	40	492	289	115	92
6							35	40	405	275	114	90
7							35	38	367	262	108	93
8							34	37	325	252	121	92
9							35	40	298	238	118	92
10							33	79	275	220	112	89
11							33	84	316	203	106	87
12							33	109	283	191	106	86
13							33	133	372	179	104	84
14							33	175	850	171	104	82
15							33	274	1390	163	103	80
16							37	393	1310	155	102	78
17							41	444	1120	149	103	75
18							44	468	900	142	100	74
19							44	436	954	142	97	73
20							44	458	988	139	100	72
21							66	566	988	136	96	80
22							56	426	995	140	93	79
23							49	370	705	139	93	86
24							45	496	534	139	109	84
25							42	374	554	132	108	79
26							32	275	586	126	110	81
27							31	235	526	121	106	84
28							40	210	514	118	104	79
29							41	258	472	116	102	76
30							44	446	496	116	100	80
31							---	783	---	114	100	---
TOTAL							1156	7849	19226	6011	3328	2532
MEAN							38.5	253	641	194	107	84.4
MAX							66	783	1390	430	130	99
MIN							31	37	275	114	93	72
AC-FT							2290	15570	38130	11920	6600	5020

BEST COPY AVAILABLE

06279050 SHELL CREEK AT PORTER GULCH, NEAR GREYBULL, WY

LOCATION.--Lat 44°31'25", long 107°55'29", in NE¼SE¼SE¼ sec.33, T.53 N., R.92 W., Big Horn County, Hydrologic Unit 10080010, at bridge on county road, 0.2 mi north of U.S. Highway 14, 7.6 miles east of Greybull on U.S. Highway 14.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN 25...	1650	746	10.0	.02	<.01	<.01	<.01	.010	<.010
JUL 06...	1245	119	16.5	.02	<.01	<.01	<.01	.040	<.010
SEP 04...	1130	24	14.0	<.01	<.01	<.01	<.01	.010	<.010

06279090 SHELL CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°30'34", long 108°02'52", in NW¼SW¼ sec.4, T.52 N., R.93 W., Big Horn County, Hydrologic Unit 10080010, at bridge on county road, 0.4 mi upstream from mouth, and 1.5 mi north of post office in Greybull.

DRAINAGE AREA.--560 mi², approximately.

PERIOD OF RECORD.--Water years 1951, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 03...	1720	112	1270	13.0	530	140	45	100	2	2.9
JAN 10...	1500	62	942	.0	410	110	33	60	1	1.7
APR 04...	1100	77	977	5.0	400	100	37	65	1	1.6
JUN 25...	1740	827	320	10.5	140	38	10	14	.5	.00

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 03...	200	520	4.2	.50	9.9	940	1.3	285	.400	.060
JAN 10...	220	310	3.2	.20	11	660	.90	111	.600	.000
APR 04...	200	340	3.4	.10	7.9	670	.92	140	.300	.020
JUN 25...	92	67	.80	.00	5.6	190	.26	426	.200	.010

06279500 BIGHORN RIVER AT KANE, WY

LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼NE¼SW¼ sec.9, T.55 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, on right bank 180 ft upstream from Bighorn Canyon National Recreation Area boundary, 0.5 mi upstream from normal high-water line of Bighorn Lake at elevation 3,660 ft, 1.3 mi upstream from Five Springs Creek, and 5.9 mi south of Kane.

DRAINAGE AREA.--15,765 mi^2. Area at sites used prior to May 17, 1956, 15,846 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M). WSP 1509: 1929. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft, from topographic map. Aug. 29, 1928, to Apr. 25, 1932, nonrecording gage, and Apr. 25, 1932, to May 16, 1956, water-stage recorder, at site 12.5 mi downstream at different datum.

REMARKS.--Records fair except those for December to March, and June to August, which are poor. Some regulation by Boysen Reservoir (station 06258900) since October 1951. Diversions for irrigation of about 376,000 acres above station.

AVERAGE DISCHARGE.--56 years, 2,293 ft^3/s, 1,661,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft^3/s, June 16, 1935, gage height, 11.10 ft, site and datum then in use; minimum daily, 179 ft^3/s, July 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1923, 14.8 ft, Sept. 30, 1923, site and datum in use April 1932 to May 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft^3/s, June 17, gage height, 6.16 ft, from floodmarks; maximum gage height, 7.99 ft, Dec. 3 (backwater from ice); minimum daily discharge, 1,280 ft^3/s, July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2740	2880	1720	1740	1830	1750	1970	1850	6650	1700	4450	1650
2	2730	2910	1600	1750	1810	1780	1980	1860	6300	1600	3850	1820
3	2730	2910	1640	1790	1800	1800	2000	2010	5500	1600	4200	1930
4	2810	2880	1720	1790	1800	1750	1970	2120	5450	1650	4100	1970
5	2810	2790	1800	1800	1800	1750	1980	2300	5300	1600	4100	1900
6	2770	2790	1700	1800	1800	1740	1980	2310	5000	1650	4100	1840
7	2770	2820	1650	1800	1800	1740	2020	2300	4650	1600	3350	1790
8	2760	2860	1680	1800	1780	1730	2030	2210	4290	1580	2450	1860
9	2850	2920	1710	1820	1810	1730	2070	2080	4150	1680	2250	1880
10	2890	2820	1780	1820	1800	1800	2090	2110	3690	1580	2100	1990
11	3110	2860	2050	1830	1810	1920	1990	2810	4110	1400	1900	2030
12	3120	2980	2090	1820	1780	2000	1840	2980	4580	1280	1700	2030
13	2960	2980	2080	1800	1780	2130	1940	3020	3960	1310	1600	2030
14	2580	3000	1950	1800	1800	2320	2000	3170	4810	1480	1500	2030
15	3120	3000	1890	1800	1810	2080	1940	3980	6710	1740	1480	2030
16	3230	3000	1880	1800	1810	2100	1990	5890	7500	1660	1500	2030
17	3110	2960	1800	1800	1800	2500	1890	6910	8400	1550	1600	2050
18	3040	2930	1700	1800	1760	2300	1910	7030	7700	1440	1600	2050
19	3060	2930	1650	1800	1740	2480	1920	7420	7200	1500	1650	1990
20	3210	2910	1600	1800	1720	2400	2090	6750	6300	1480	1700	1910
21	3060	2910	1600	1800	1720	2580	2030	6720	5600	1520	1700	1650
22	2960	2900	1600	1800	1750	2800	2080	6730	4900	1440	1650	1460
23	2950	2820	1600	1790	1730	2810	1930	5760	4300	1730	1600	1840
24	2900	2700	1650	1800	1710	2420	1810	5910	3800	2140	1600	2510
25	2050	2820	1670	1800	1780	2350	1770	6490	3500	1740	1600	3130
26	2900	2960	1680	1790	1750	2350	2090	6060	3350	2060	1650	3240
27	2940	2930	1700	1780	1740	2200	2130	5190	2800	3210	1600	3490
28	2870	2880	1700	1770	1740	2100	2270	5020	2450	3550	1550	3410
29	2820	2860	1700	1780	1740	2000	2050	4460	1950	3570	1500	3070
30	2820	2210	1700	1790	---	2000	1990	4670	1750	3750	1520	2880
31	2860	---	1700	1800	---	1980	---	5500	---	3500	1600	---
TOTAL	89530	86120	53990	55660	51500	65390	59750	133620	146650	59290	68750	65490
MEAN	2888	2871	1742	1795	1776	2109	1992	4310	4888	1913	2218	2183
MAX	3230	3000	2090	1830	1830	2810	2270	7420	8400	3750	4450	3490
MIN	2050	2210	1600	1740	1710	1730	1770	1850	1750	1280	1480	1460
AC-FT	177600	170800	107100	110400	102200	129700	118500	265000	290900	117600	136400	129900

CAL YR 1983 TOTAL 1209040 MEAN 3312 MAX 11400 MIN 1050 AC-FT 2398000
WTR YR 1984 TOTAL 935740 MEAN 2557 MAX 8400 MIN 1280 AC-FT 1856000

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
05...	1200	2950	730	--	14.0	--	--	--	270	69
NOV										
15...	1250	3050	900	--	4.5	--	--	--	280	71
FEB										
16...	1330	1810	725	8.1	.0	12.6	97	90	310	79
MAR										
29...	1200	2000	1220	8.4	7.5	10.6	100	120	340	84
MAY										
14...	1100	3280	1160	--	14.0	--	--	--	300	74
18...	1300	6960	610	--	14.0	--	--	--	180	48
JUN										
20...	1530	6360	710	8.0	15.5	8.6	97	K100	170	45
AUG										
16...	1140	1510	830	8.3	20.0	8.1	100	140	320	82
31...	1215	1610	910	--	20.0	--	--	--	290	72

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
05...	24	74	2	2.7	160	240	11	.40	9.2	530
NOV										
15...	25	79	2	2.3	170	270	14	.40	9.3	570
FEB										
16...	28	78	2	3.1	180	290	18	.40	8.0	610
MAR										
29...	32	97	2	3.8	180	330	17	.30	8.7	680
MAY										
14...	27	86	2	3.4	160	280	12	.30	10	590
18...	15	40	1	2.5	110	140	5.9	.20	7.3	320
JUN										
20...	14	40	1	1.9	110	130	5.4	.20	7.5	310
AUG										
16...	28	90	2	3.6	190	290	12	.50	12	630
31...	27	90	2	2.6	160	310	12	.40	13	620

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
05...	.72	4190	.20	.30	.050	1.1	1.1	.000	124	988
NOV										
15...	.78	4720	.20	.20	.120	.98	1.1	.040	121	996
FEB										
16...	.83	2990	.30	.30	.360	.34	.70	.090	49	239
MAR										
29...	.93	3680	.30	.20	.110	.79	.90	.080	347	1870
MAY										
14...	.80	5210	--	.50	--	--	--	.060	628	5560
18...	.44	6100	--	.50	--	--	--	.060	1480	27800
JUN										
20...	.42	5320	.30	.40	<.010	--	1.1	.010	541	9290
AUG										
16...	.86	2580	.70	.60	.060	.54	.60	.090	154	628
31...	.85	2710	--	.40	--	--	--	.000	60	261

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAY				
18...	1300	72	82	90

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
20...	1530	6360	15.5	.05	<.01	<.01	<.01	.030	<.010
AUG									
16...	1140	1510	20.0	.08	<.01	<.01	<.01	.030	.030
31...	1215	1610	20.0	.03	<.01	<.01	<.01	.040	.010

06279850 MIDDLE CREEK AT EAST ENTRANCE, YELLOWSTONE NATIONAL PARK, WY

LOCATION.--Lat 44°29'22", long 110°00'00", Park County, Hydrologic Unit 10080012, Shoshone National Forest, on left bank 0.2 mi downstream from Yellowstone National Park boundary, 2.0 mi southwest of Pahaska Tepee Lodge, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--32.6 mi^2.

PERIOD OF RECORD.--October 1981 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,900 ft, from topographic map.

REMARKS.--Records good. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 763 ft^3/s, June 28, 1982, gage height, 4.74 ft; minimum daily, 8.0 ft^3/s, Feb. 4, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 448 ft^3/s, June 29, gage height, 3.87 ft; minimum daily, 9.2 ft^3/s, Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	33	23	17	14	12	12	20	342	332	81	31
2	40	32	25	20	14	12	12	20	286	307	86	29
3	39	35	23	16	13	12	12	19	260	292	78	27
4	34	33	22	16	13	12	12	19	234	298	69	27
5	35	38	21	16	14	14	13	19	221	292	65	31
6	35	39	21	16	14	12	13	18	209	280	61	31
7	36	55	22	16	13	12	13	18	195	277	58	21
8	33	54	22	16	13	12	13	19	177	263	54	25
9	43	47	22	16	14	12	13	22	160	243	51	30
10	72	45	21	17	13	12	13	25	149	224	50	25
11	59	43	21	16	13	12	13	27	144	210	47	25
12	52	41	20	16	13	12	13	50	136	198	45	26
13	49	38	20	15	13	12	13	94	140	189	44	21
14	48	37	20	15	13	12	13	170	169	173	42	20
15	46	35	19	14	13	12	17	219	228	161	41	23
16	43	34	20	15	13	12	23	219	263	152	48	24
17	41	34	19	16	13	12	30	158	286	142	41	23
18	41	33	18	14	13	12	36	141	295	135	38	22
19	38	32	18	15	12	12	35	161	298	134	38	22
20	37	31	18	15	9.2	12	31	208	313	129	53	22
21	37	30	17	14	9.6	12	28	213	311	134	38	18
22	38	27	17	14	13	12	30	177	308	151	36	16
23	40	28	16	15	12	12	31	186	302	149	34	12
24	41	28	15	15	12	12	27	265	310	132	34	11
25	38	28	17	15	12	12	26	213	342	118	37	12
26	37	27	18	14	12	12	23	198	374	108	36	15
27	37	26	19	14	12	12	22	200	382	101	32	13
28	35	25	17	14	12	12	21	192	379	95	31	15
29	34	24	17	14	12	12	20	214	396	99	29	16
30	33	22	17	14	---	12	20	278	375	88	28	17
31	33	---	18	14	---	12	---	382	---	91	35	---
TOTAL	1257	1034	603	474	366.8	374	598	4164	7984	5697	1460	650
MEAN	40.5	34.5	19.5	15.3	12.6	12.1	19.9	134	266	184	47.1	21.7
MAX	72	55	25	20	14	14	36	382	396	332	86	31
MIN	33	22	15	14	9.2	12	12	18	136	88	28	11
AC-FT	2490	2050	1200	940	728	742	1190	8260	15840	11300	2900	1290

CAL YR 1983 TOTAL 24313.4 MEAN 66.6 MAX 393 MIN 9.6 AC-FT 48230
WTR YR 1984 TOTAL 24661.8 MEAN 67.4 MAX 396 MIN 9.2 AC-FT 48920

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY

LOCATION.--Lat 44°28'45", long 109°20'28", in NW¼NE¼SE¼ sec.15, T.52 N., R.104 W., Park County, Hydrologic Unit 10080012, on left bank 600 ft downstream from Trout Creek, 1.6 mi upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft, 4.8 mi east of Wapiti, and 14 mi west of Cody.

DRAINAGE AREA.--775 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to September 1926, May 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft, from topographic map. January 1921 to September 1926, water-stage recorder at site 0.6 mi downstream at different datum.

REMARKS.--Records poor. Diversion for irrigation of about 2,700 acres above station.

AVERAGE DISCHARGE.--10 years (water years 1922-26, 1980-84), 890 ft³/s, 644,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s, June 9, 1981, gage height, 12.0 ft, from floodmarks; minimum daily, 94 ft³/s, Jan. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 24	0500	4,970	8.04	June 30	0030	*8,270	*9.51
May 31	2330	8,230	9.06				

Minimum daily discharge, 130 ft³/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	441	450	175	190	170	160	171	544	5150	4830	1480	401
2	465	450	180	210	170	160	171	546	3440	4480	1330	311
3	437	420	180	210	170	160	161	549	3040	4370	1250	286
4	494	440	180	210	170	165	166	563	2660	4160	1120	276
5	513	420	180	210	170	155	167	563	2300	4260	1050	264
6	603	410	180	210	170	160	165	575	2140	4120	1050	285
7	503	400	180	210	170	160	166	579	1940	4050	1010	314
8	498	390	185	210	170	165	168	612	1750	3970	904	285
9	460	390	190	210	170	165	172	605	1580	3430	827	510
10	598	401	195	200	170	165	175	616	1460	2920	745	308
11	620	397	200	215	160	170	176	777	1440	2730	771	268
12	620	389	210	215	165	175	180	937	1340	2610	739	278
13	560	397	190	210	165	177	184	1390	1480	2520	741	248
14	549	401	190	190	165	175	198	1650	1970	2320	654	241
15	554	389	190	180	165	174	231	1800	2720	2150	629	243
16	570	397	190	170	160	168	280	1500	2970	2100	737	245
17	576	417	180	160	165	162	250	1800	3210	2000	684	231
18	565	418	170	150	165	184	202	2500	3420	1890	614	227
19	587	417	160	155	165	182	200	3300	3230	1850	555	223
20	565	408	160	160	165	180	202	2850	3820	1830	681	224
21	550	378	150	165	170	183	207	2600	4170	1830	531	231
22	540	330	150	170	170	171	215	1970	4810	1850	449	323
23	540	300	140	170	165	190	208	2110	4370	2190	429	300
24	540	270	130	170	175	223	314	3850	4620	2220	416	339
25	525	240	140	170	170	200	450	2510	5200	1820	407	354
26	510	220	150	170	160	199	480	2300	6110	1760	506	368
27	485	200	165	170	155	179	532	2440	6000	1640	380	410
28	500	190	180	170	150	167	549	2160	5890	1470	352	364
29	490	180	180	170	150	165	535	2470	5930	1540	334	385
30	470	170	185	170	---	167	540	3590	6140	1470	320	365
31	460	---	190	170	---	170	---	6070	---	1330	326	---
TOTAL	16388	10679	5425	5740	4805	5376	7815	56326	104300	81710	22021	9107
MEAN	529	356	175	185	166	173	261	1817	3477	2636	710	304
MAX	620	450	210	215	175	223	549	6070	6140	4830	1480	510
MIN	437	170	130	150	150	155	161	544	1340	1330	320	223
AC-FT	32510	21180	10760	11390	9530	10660	15500	111700	206900	162100	43680	18060

CAL YR 1983 TOTAL 350890 MEAN 961 MAX 6390 MIN 130 AC-FT 696000
WTR YR 1984 TOTAL 329692 MEAN 901 MAX 6140 MIN 130 AC-FT 653900

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1979 to current year.

INSTRUMENTATION.--Temperature recorder since May 1979.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum daily, 20.0°C, Aug. 16, 1981; minimum, 0.0°C many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily observed, 18.0°C, Aug. 10; minimum, 0.0°C many days in November, December, January, February, and March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
07...	1300	481	115	9.0	36	11	2.0	11	.8	.00
NOV										
16...	1600	410	144	4.0	39	11	2.8	16	1	.30
JAN										
12...	1120	223	81	.0	28	7.6	2.2	11	.9	.60
FEB										
23...	1000	166	162	.0	49	13	4.1	18	1	.90
APR										
03...	1400	143	154	3.0	41	11	3.3	15	1	.40
24...	1630	494	114	3.5	36	9.4	3.0	13	1	.50
MAY										
10...	1500	608	114	2.5	36	9.4	3.0	13	1	.50
JUN										
27...	0900	5590	51	5.5	22	4.8	2.5	1.1	.1	.20
JUL										
09...	1230	3350	58	9.5	20	4.8	1.9	5.8	.6	.20
AUG										
08...	1500	931	88	16.5	31	7.6	2.9	11	.9	.80

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
07...	52	8.6	1.4	.10	17	82	.11	107	.000	.060
NOV										
16...	65	10	2.8	.10	18	100	.14	111	.000	.080
JAN										
12...	32	6.5	.40	.10	13	61	.08	36	<.100	.040
FEB										
23...	68	17	.20	.20	20	110	.16	51	.100	.050
APR										
03...	65	14	.80	.10	18	100	.14	39	.000	.050
24...	54	9.5	.60	.10	17	85	.12	114	.000	.070
MAY										
10...	54	9.3	.60	.20	17	85	.12	140	.000	.180
JUN										
27...	22	1.8	.00	.00	13	37	.05	552	.000	.040
JUL										
09...	30	2.2	.00	.00	14	47	.06	424	.000	.040
AUG										
08...	49	5.4	.80	.10	18	76	.10	191	.000	.050

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.5	7.5	---	---			---	---	.0	.0	.0	.0
2	11.0	8.0	---	---			---	---	.0	.0	.0	.0
3	9.5	6.5	---	---			---	---	.0	.0	.0	.0
4	10.5	5.5	---	---			---	---	.0	.0	.0	.0
5	10.5	8.0	---	---			---	---	.0	.0	.0	.0
6	11.0	7.0	---	---			---	---	.0	.0	.0	.0
7	10.0	9.0	---	---			---	---	.0	.0	.0	.0
8	9.5	6.5	---	---			---	---	.0	.0	.0	.0
9	10.0	7.5	---	---			---	---	.0	.0	.0	.0
10	9.0	8.0	---	---			---	---	.0	.0	.0	.0
11	8.0	6.0	---	---			---	---	.0	.0	.5	.0
12	8.0	6.0	---	---			.0	.0	.0	.0	2.0	.0
13	---	---	---	---			.0	.0	.0	.0	3.5	.5
14	---	---	---	---			.0	.0	.0	.0	4.0	.5
15	---	---	---	---			.0	.0	.0	.0	2.0	.0
16	---	---	4.0	---			.0	.0	.0	.0	3.0	.0
17	---	---	4.0	3.0			.0	.0	.0	.0	2.0	.0
18	---	---	4.0	3.0			.0	.0	.0	.0	4.5	.0
19	---	---	3.0	2.5			.0	.0	.0	.0	5.0	.0
20	---	---	2.5	2.0			.0	.0	.0	.0	7.5	1.0
21	---	---	2.0	1.5			.0	.0	.0	.0	4.5	1.0
22	---	---	---	---			.0	.0	.0	.0	5.0	.5
23	---	---	---	---			.0	.0	.0	.0	7.0	.5
24	---	---	---	---			.0	.0	.0	.0	5.5	.5
25	---	---	---	---			.0	.0	.0	.0	7.0	.0
26	---	---	---	---			.0	.0	.0	.0	3.5	.5
27	---	---	---	---			.0	.0	.0	.0	3.5	.0
28	---	---	---	---			.0	.0	.0	.0	6.5	.0
29	---	---	---	---			.0	.0	.0	.0	6.0	.5
30	---	---	---	---			.0	.0	---	---	3.5	1.0
31	---	---	---	---			.0	.0	---	---	6.5	.5
MONTH	11.0	5.5	4.0	1.5			.0	.0	.0	.0	7.5	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.0	1.0	9.0	1.5	5.0	1.5	11.5	5.5	14.5	11.5	---	---
2	4.5	.5	9.0	2.5	5.5	.5	12.5	7.0	15.0	11.5	---	---
3	6.0	.0	5.0	2.0	---	---	12.5	8.0	16.0	11.0	---	---
4	7.0	.0	9.0	.5	---	---	13.0	8.0	16.5	12.0	---	---
5	4.0	.0	6.5	2.5	---	---	14.0	8.5	16.0	11.5	16.5	---
6	4.5	.0	2.0	.5	---	---	13.5	8.5	16.0	12.0	15.0	11.0
7	6.0	.0	7.5	.0	---	---	13.0	9.5	17.0	12.0	11.0	6.0
8	4.0	.0	10.0	.5	---	---	13.5	9.5	17.0	12.5	13.0	6.5
9	4.0	.5	8.5	2.0	---	---	13.0	9.5	17.5	12.0	13.5	8.5
10	6.5	.0	5.0	1.0	---	---	13.5	9.5	18.0	12.0	---	---
11	4.5	.0	7.0	1.0	---	---	14.5	9.5	---	---	---	---
12	7.0	.0	8.5	1.5	---	---	14.0	10.0	---	---	---	---
13	7.5	.0	8.5	2.0	---	---	15.0	10.5	---	---	---	---
14	8.5	.0	6.5	1.5	---	---	15.0	10.0	---	---	---	---
15	8.5	.5	4.5	1.0	---	---	16.0	11.0	---	---	---	---
16	8.0	1.0	5.5	1.5	---	---	15.0	11.0	---	---	---	---
17	5.5	.5	6.0	.0	---	---	15.0	10.5	---	---	---	---
18	6.0	1.5	7.5	2.0	---	---	13.0	11.0	---	---	---	---
19	4.5	1.0	8.5	2.5	---	---	15.5	12.0	---	---	---	---
20	2.5	1.0	7.0	3.0	---	---	15.0	11.5	17.5	---	---	---
21	4.5	.5	4.5	2.0	7.5	3.0	13.5	11.5	---	---	---	---
22	7.5	1.0	7.0	1.0	7.5	3.0	13.0	11.0	---	---	---	---
23	5.0	1.0	7.0	2.5	9.0	3.0	13.5	9.5	---	---	---	---
24	4.5	.0	5.5	2.5	9.5	3.5	17.5	11.5	---	---	---	---
25	3.5	.0	4.0	1.0	10.0	4.5	16.5	13.0	---	---	---	---
26	1.0	.0	4.0	2.0	10.5	5.0	17.0	12.5	---	---	---	---
27	2.5	.0	5.5	1.0	11.0	5.5	16.0	12.5	---	---	---	---
28	4.5	.0	8.0	2.0	12.0	6.0	16.0	12.5	---	---	---	---
29	3.0	.5	9.5	3.0	12.5	6.5	16.0	13.5	---	---	---	---
30	5.5	.0	9.0	2.5	9.5	7.5	17.0	12.5	---	---	---	---
31	---	---	7.5	3.5	---	---	16.0	13.0	---	---	---	---
MONTH	8.5	.0	10.0	.0	12.5	.5	17.5	5.5	18.0	11.0	16.5	6.0
YEAR	18.0	.0										

06280300 SOUTH FORK SHOSHONE RIVER NEAR VALLEY, WY

LOCATION.--Lat 44°12'30", long 109°33'15", in NE¼ sec.24, T.49 N., R.106 W., Park County, Hydrologic Unit 10080013, Shoshone National Forest, on left bank 75 ft downstream from U.S. Forest Service bridge, 0.4 mi downstream from Boulder Creek, 3.2 mi northeast of Valley, and 34 mi southwest of Cody.

DRAINAGE AREA.--297 mi².

PERIOD OF RECORD.--October 1956 to September 1958, October 1959 to current year.

REVISED RECORDS.--WRD WY 1974: 1963.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft, from topographic map. Prior to Nov. 22, 1961, at site 75 ft upstream at same datum.

REMARKS.--Records fair except those for winter period and those for August and September, which are poor. Diversions for irrigation of about 450 acres above station.

AVERAGE DISCHARGE.--27 years, 427 ft³/s, 309,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s, June 9, 1981, gage height, 9.24 ft, from floodmarks; minimum daily, 41 ft³/s, Feb. 27, 28, 1961, Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 31	2200	3,180	6.73	July 22	2300	3,020	6.62
June 27	2300	*3,710	*7.05				

Minimum daily discharge, 64 ft³/s, Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	286	166	73	91	77	70	79	130	1970	2130	833	310
2	264	162	74	110	80	70	78	134	1420	2090	742	290
3	257	161	75	108	80	70	76	135	1410	1970	671	280
4	242	159	83	108	76	72	80	132	1110	1930	620	270
5	236	160	83	104	79	68	90	137	940	1990	598	290
6	227	159	83	105	82	72	92	127	876	1820	585	290
7	224	150	87	105	86	72	92	117	733	1900	528	220
8	216	145	103	101	80	72	92	126	701	1920	491	230
9	213	136	108	96	81	72	92	182	682	1570	475	250
10	222	135	119	85	81	72	87	209	674	1280	452	210
11	219	130	119	92	76	74	85	195	689	1210	562	219
12	219	130	123	92	74	74	79	357	698	1210	544	208
13	219	130	117	90	74	74	82	857	875	1280	520	190
14	211	128	118	91	77	74	79	1400	1260	1130	520	185
15	208	125	116	80	70	74	106	1580	1610	1020	510	192
16	197	120	115	75	71	74	206	1320	1720	987	525	208
17	195	120	110	70	71	74	305	814	2060	961	465	203
18	196	120	110	68	70	74	317	811	2220	924	460	200
19	180	118	93	70	66	74	291	996	2020	944	460	200
20	184	115	85	75	64	76	229	1320	2200	946	490	200
21	185	110	76	73	68	76	187	1100	2200	873	410	195
22	184	105	70	77	73	76	172	791	2150	1240	390	185
23	182	99	73	79	70	76	190	970	2030	1580	370	175
24	182	95	77	79	70	76	157	1460	2250	1280	375	170
25	173	92	80	80	72	76	155	941	2530	1230	390	200
26	177	90	90	76	70	76	168	823	2850	1230	380	238
27	171	87	95	76	70	76	103	748	2950	1080	360	227
28	170	82	92	82	70	78	130	790	2850	933	350	219
29	169	80	91	77	70	78	131	1220	2770	1170	330	219
30	167	72	91	80	---	80	125	1920	2800	908	320	227
31	167	---	93	79	---	79	---	2440	---	857	340	---
TOTAL	6342	3681	2922	2674	2148	2299	4155	24282	51248	41593	15066	6700
MEAN	205	123	94.3	86.3	74.1	74.2	139	783	1708	1342	486	223
MAX	286	166	123	110	86	80	317	2440	2950	2130	833	310
MIN	167	72	70	68	64	68	76	117	674	857	320	170
AC-FT	12580	7300	5800	5300	4260	4560	8240	48160	101700	82500	29880	13290

CAL YR 1983 TOTAL 154481 MEAN 423 MAX 2630 MIN 60 AC-FT 306400
WTR YR 1984 TOTAL 163110 MEAN 446 MAX 2950 MIN 64 AC-FT 323500

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°25'58", long 109°15'06", in lot 46, sec.33, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, on left bank at bridge on county road, 1.0 mi upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft, 1.1 mi downstream from Cody Canal diversion, and 11.5 mi southwest of Cody.

DRAINAGE AREA.--585 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1903, May 1905 to September 1908, January 1921 to September 1926, October 1973 to current year (gage heights only June to September 1908). No winter records 1906, 1908, 1922. Published as "at Marquette" 1903, 1905-8, and as Shoshone River above Shoshone Reservoir 1921-26.

REVISED RECORDS.--WSP 1309: 1907.

GAGE.--Water-stage recorder. Altitude of gage is 5,410 ft, from topographic map. Apr. 26 to Nov. 30, 1903, and May 1905 to May 30, 1908, nonrecording gages at sites within about 6.0 mi downstream at different datums.

REMARKS.--Records poor. Diversions for irrigation of about 11,000 acres above station.

AVERAGE DISCHARGE.--16 years (water years 1907, 1923-26, 1974-84), 426 ft^3/s, 308,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,960 ft^3/s, June 9, 1981, gage height, 9.41 ft; minimum daily discharge, 2.8 ft^3/s, Oct. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,750 ft^3/s, June 28, gage height, 5.51 ft, from floodmarks; minimum daily, 6.9 ft^3/s, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	130	135	135	106	100	120	140	2100	2700	820	25
2	156	140	140	140	104	100	120	145	1750	2500	660	26
3	154	150	145	140	110	100	110	150	1400	2400	520	21
4	143	160	150	140	110	100	100	150	1300	2400	450	17
5	136	170	150	139	106	105	105	150	1150	2380	400	17
6	124	180	160	137	110	90	110	155	950	2420	350	15
7	119	180	160	135	115	92	110	150	880	2150	340	7.3
8	113	180	170	130	120	92	110	140	740	2200	326	8.2
9	102	170	170	120	110	92	110	160	690	1900	270	15
10	117	180	180	110	115	94	100	230	660	1600	225	9.1
11	119	190	170	120	120	94	96	260	650	1500	211	6.9
12	111	200	170	120	110	94	90	240	670	1400	368	31
13	116	200	170	120	105	94	85	400	670	1400	316	18
14	107	200	165	120	105	94	88	950	870	1450	207	16
15	108	210	165	120	110	94	86	1600	1100	1300	175	14
16	100	210	160	110	100	94	94	1800	1250	1200	207	23
17	91	210	150	98	100	94	100	1500	1300	1100	229	17
18	92	210	140	84	100	94	170	932	1400	1050	168	10
19	80	200	120	88	100	96	180	940	1450	950	150	10
20	76	200	110	90	98	96	170	1100	1300	980	146	10
21	76	190	100	94	95	98	140	1230	1350	980	112	12
22	80	185	98	98	102	98	115	623	1310	908	81	18
23	90	180	96	100	100	99	105	528	1300	1800	42	43
24	90	170	94	104	100	100	110	1880	1280	1470	40	87
25	90	160	110	104	100	100	100	2000	1620	1330	35	157
26	94	150	140	110	100	102	94	1300	2220	1270	36	202
27	96	145	130	100	100	105	120	840	2780	1270	34	216
28	98	140	130	100	100	108	105	700	2950	1100	28	173
29	100	130	130	110	100	118	140	740	2800	960	25	191
30	110	130	135	100	---	118	145	940	2700	1140	25	211
31	120	---	130	108	---	125	---	1400	---	950	27	---
TOTAL	3402	5250	4373	3524	3051	3080	3428	23473	42590	48158	7023	1626.5
MEAN	110	175	141	114	105	99.4	114	757	1420	1553	227	54.2
MAX	194	210	180	140	120	125	180	2000	2950	2700	820	216
MIN	76	130	94	84	95	90	85	140	650	908	25	6.9
AC-FT	6750	10410	8670	6990	6050	6110	6800	46560	84480	95520	13930	3230

CAL YR 1983 TOTAL 140575.4 MEAN 385 MAX 3110 MIN 6.2 AC-FT 278800
WTR YR 1984 TOTAL 148978.5 MEAN 407 MAX 2950 MIN 6.9 AC-FT 295500

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1981 to current year.

INSTRUMENTATION.--Temperature recorder since October 1981.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C, Sept. 2, 1983; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.5°C, Aug. 18; minimum, 0.0°C several days during December, January, February, March, and April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 12...	1440	112	215	9.5	75	21	5.4	17	.9	.80
JAN 05...	1220	139	216	.0	74	22	4.6	21	1	1.7
MAR 27...	1600	105	245	7.0	84	24	5.9	16	.8	.40
JUN 27...	1215	2860	73	8.0	29	7.3	2.5	6.1	.5	.90

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 12...	70	33	1.2	.10	19	140	.19	42	.00	.060
JAN 05...	75	38	1.0	.20	18	150	.21	57	.20	.080
MAR 27...	84	38	1.0	.20	19	150	.21	44	.00	.360
JUN 27...	32	5.1	.00	.00	12	53	.07	410	.10	.060

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	9.5	9.5	6.5	1.5	.5	1.0	.0	.5	.5	.0	.0
2	11.5	10.0	8.5	7.0	1.5	.0	1.0	.0	.5	.5	.5	.5
3	11.5	9.0	10.0	7.0	.0	.0	.0	.0	1.0	.5	.5	.5
4	12.5	7.5	9.0	6.0	.0	.0	.0	.0	1.0	.5	1.0	.5
5	13.0	9.5	8.5	6.5	1.5	.5	.0	.0	1.0	.5	1.5	.5
6	13.5	9.0	9.0	5.5	.5	.5	.0	.0	.5	.0	.5	.5
7	12.0	9.5	7.0	3.5	1.5	.5	.0	.0	.5	.0	.5	.5
8	11.5	7.0	4.0	2.0	.5	.5	.0	.0	1.0	.0	1.0	.5
9	12.5	9.0	2.5	1.0	.5	.5	1.0	.5	1.0	.0	3.5	.5
10	11.5	9.5	4.5	1.5	.5	.5	.5	.5	.5	.0	4.5	1.0
11	9.5	8.0	5.5	4.0	1.0	.5	.5	.5	.0	.0	5.5	2.5
12	11.0	6.5	5.5	3.0	1.0	1.0	.5	.5	.0	.0	4.0	2.0
13	11.5	8.0	4.5	2.5	1.0	1.0	1.0	.5	.0	.0	5.0	1.5
14	10.5	9.0	3.5	1.5	1.0	1.0	3.0	1.0	.0	.0	6.0	2.5
15	9.0	8.0	2.0	1.0	.5	.5	3.0	1.0	1.0	.0	6.0	1.5
16	9.5	5.5	4.5	2.0	1.5	.5	2.0	1.0	.0	.0	6.0	3.0
17	9.0	6.0	4.0	2.0	3.5	1.0	3.5	1.5	.0	.0	4.5	2.0
18	7.5	6.0	3.5	2.0	3.5	1.0	4.0	1.5	1.0	.0	6.5	3.0
19	8.5	4.5	2.5	1.0	2.5	1.0	3.0	1.0	1.0	.0	7.5	2.5
20	9.5	5.0	1.0	.5	3.5	2.0	3.0	.5	.5	.0	9.0	4.0
21	10.5	6.5	1.0	.5	4.0	2.0	.5	.5	.0	.0	7.5	4.0
22	11.0	7.5	2.0	.5	4.0	2.0	.5	.5	.0	.0	7.0	2.0
23	9.5	8.0	2.0	.5	4.0	2.0	.5	.5	.0	.0	10.0	3.0
24	9.5	6.0	.5	.5	4.5	2.0	.5	.5	.5	.0	8.5	4.5
25	9.5	5.5	.5	.5	2.5	.5	.5	.5	.5	.0	9.5	3.5
26	11.0	7.0	1.5	.5	1.0	.5	.5	.5	1.5	.0	6.0	2.5
27	10.5	7.0	2.0	.5	2.5	.5	.5	.5	.5	.0	7.0	1.5
28	9.0	6.0	.5	.5	3.5	1.0	.5	.5	.5	.0	8.0	2.0
29	9.0	6.0	2.0	.5	3.0	.5	1.0	.5	.0	.0	8.5	3.0
30	9.0	6.0	3.0	.5	.5	.0	1.0	.5	---	---	6.5	4.0
31	9.5	7.0	---	---	.0	.0	.5	.5	---	---	9.0	2.5
MONTH	13.5	4.5	10.0	.5	4.5	.0	4.0	.0	1.5	.0	10.0	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	4.5	11.5	5.5	10.5	5.5	13.0	8.0	17.0	14.0	17.5	13.5
2	6.0	3.0	12.0	6.5	10.5	5.0	14.0	8.5	16.5	14.0	18.0	13.0
3	10.0	3.0	9.0	6.0	10.5	7.5	13.5	9.0	17.0	14.0	18.0	13.5
4	11.0	3.5	12.0	4.0	11.0	6.5	13.5	9.0	17.0	14.5	18.0	13.5
5	9.5	5.0	10.0	7.0	11.5	7.5	14.5	9.5	17.5	15.0	17.0	14.0
6	9.0	5.0	8.0	4.0	10.5	7.0	14.0	9.5	18.0	15.0	17.0	14.5
7	11.0	5.0	12.5	2.5	11.5	7.5	14.0	10.0	18.5	15.0	14.5	10.5
8	8.5	4.0	15.0	5.5	11.0	7.5	13.5	9.5	19.0	16.0	15.0	10.5
9	9.0	5.0	15.5	8.0	11.0	7.0	13.0	9.5	19.5	16.5	15.0	12.0
10	10.5	3.0	12.0	7.5	9.5	6.5	14.0	10.0	20.0	16.5	16.5	12.5
11	8.0	3.0	11.5	8.0	12.5	6.5	14.5	10.0	19.5	16.5	14.5	12.0
12	6.0	1.0	14.0	8.0	14.5	7.5	14.5	10.5	18.5	15.0	17.0	12.0
13	9.5	2.0	15.0	7.5	14.5	9.5	15.0	11.0	18.0	16.0	16.5	11.0
14	11.5	3.0	13.0	7.0	14.5	9.0	15.5	11.0	19.5	15.5	16.5	10.0
15	13.0	5.0	11.0	6.5	14.0	9.0	15.5	11.5	19.0	16.5	15.0	10.5
16	13.5	6.0	11.0	6.5	12.0	7.5	15.5	12.0	17.5	16.0	17.0	11.0
17	10.5	6.5	11.0	3.5	12.5	8.0	15.0	11.5	19.5	16.0	18.0	11.5
18	11.0	6.0	11.5	6.0	12.0	7.0	15.0	12.0	20.5	17.0	19.5	12.0
19	9.0	6.0	12.0	6.5	13.5	7.0	15.5	12.5	19.5	17.5	18.5	12.0
20	6.5	4.5	12.0	7.5	13.0	7.5	15.5	13.0	18.5	16.0	16.5	11.5
21	10.5	4.0	9.0	6.0	13.5	7.5	15.5	13.5	18.5	15.0	13.5	9.5
22	12.0	4.5	12.0	5.0	12.5	7.0	15.0	12.0	18.5	15.0	11.0	7.5
23	9.5	5.0	13.0	7.0	13.5	7.0	13.5	10.5	17.5	16.0	8.5	4.0
24	9.0	3.0	11.5	6.5	14.0	7.5	16.5	12.0	19.5	15.0	6.0	2.5
25	6.0	1.5	9.0	5.0	14.0	7.5	17.0	14.5	18.0	16.0	6.5	3.0
26	1.5	.0	9.0	6.5	14.5	8.0	17.0	13.5	18.5	14.5	6.0	5.0
27	5.5	.5	10.5	6.5	14.0	8.0	17.0	14.0	18.5	15.5	5.5	3.5
28	7.0	.5	13.5	7.0	14.5	8.0	16.5	13.5	19.0	15.5	7.0	3.5
29	6.5	3.5	15.0	8.0	14.0	8.5	16.5	14.5	19.0	15.0	7.0	3.5
30	9.5	2.0	14.5	7.0	13.0	9.0	18.0	14.5	17.0	14.5	8.5	5.0
31	---	---	12.5	7.5	---	---	18.0	15.0	18.0	14.5	---	---
MONTH	13.5	.0	15.5	2.5	14.5	5.0	18.0	8.0	20.5	14.0	19.5	2.5
YEAR	20.5	.0										

06281400 DIAMOND CREEK NEAR MOUTH, NEAR CODY, WY

LOCATION.--Lat 44°27'21", long 109°08'17", in SE¼NE¼NE¼ sec.29, T.52 N., R.102 W., Park County, Hydrologic Unit 10080013, on left bank 40 ft downstream from Cody Canal crossing, 0.8 mi upstream from bridge on State Highway 291, 3.9 mi southeast of Buffalo Bill Dam, and 6.3 mi southwest of Cody.

DRAINAGE AREA.--7.34 mi².

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Nonrecording gage and wooden control read once daily. Altitude of gage is 5,420 ft from topographic map.

REMARKS.--Records fair except those for December to February, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33 ft³/s, Aug. 23, 1984, gage height, 1.63 ft, from floodmarks; no flow Jan. 11-20, Jan. 30 to Feb. 6, Feb. 8, 10, 11, 14-18, 24-27, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft³/s, Aug. 23, gage height, 1.63 ft; no flow Jan. 11-20, Jan. 30 to Feb. 6, Feb. 8, 10, 11, 14-18, 24-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	14	.40	.07	.00	.25	.59	.69	14	14	22	18
2	9.6	15	.35	.09	.00	.32	.59	2.9	17	14	24	16
3	8.8	15	.32	.10	.00	.19	.59	2.9	16	11	20	12
4	8.8	14	.30	.20	.00	.08	.40	2.5	14	13	20	12
5	8.8	14	.30	.49	.00	.19	.59	2.5	12	14	21	13
6	8.8	14	.28	.32	.00	.19	.40	2.9	11	11	20	13
7	9.6	15	.26	.08	.08	.25	.40	2.9	9.6	14	18	16
8	8.8	14	.30	.08	.00	.25	.59	5.2	12	14	17	13
9	9.6	1.8	.32	.08	.08	.25	.59	5.8	12	14	14	18
10	11	1.2	.30	.08	.00	.25	.59	4.6	16	17	14	18
11	12	1.2	.29	.00	.00	.25	.40	4.6	17	19	15	17
12	13	1.8	.25	.00	.08	.32	.59	4.1	15	15	19	13
13	13	2.5	.20	.00	.08	.49	.40	3.5	18	15	14	14
14	12	.49	.15	.00	.00	.49	.40	3.5	14	13	14	15
15	14	.49	.13	.00	.00	.49	.40	8.1	14	18	17	15
16	13	.49	.12	.00	.00	.32	.40	8.1	15	12	19	14
17	12	.49	.11	.00	.00	.59	.40	3.5	16	16	18	12
18	13	.49	.10	.00	.00	.40	.59	9.6	16	14	19	12
19	12	.69	.09	.00	.08	.59	.80	2.5	10	18	17	8.8
20	12	.91	.08	.00	.08	.25	1.0	4.1	9.6	14	17	8.8
21	12	.91	.06	.02	.08	.69	.80	4.1	8.1	14	17	8.8
22	12	.84	.05	.03	.08	.49	.59	5.2	11	16	18	6.6
23	13	.91	.05	.05	.08	.49	.59	13	14	21	21	12
24	13	.80	.04	.07	.00	.49	7.7	12	12	21	21	15
25	12	.65	.03	.08	.00	.49	7.7	16	10	18	19	14
26	13	.60	.03	.09	.00	.80	7.7	19	12	18	18	12
27	13	.60	.04	.08	.00	.59	6.9	16	9.6	18	19	12
28	12	.56	.04	.08	.08	.80	6.2	16	12	19	18	12
29	12	.52	.05	.08	.25	.59	.91	14	13	19	16	10
30	14	.45	.05	.00	---	.59	.91	17	14	19	16	9.6
31	14	---	.06	.00	---	.59	---	14	---	19	17	---
TOTAL	359.8	134.39	5.15	2.17	1.05	13.02	50.71	230.79	393.9	492	559	390.6
MEAN	11.6	4.48	.17	.070	.036	.42	1.69	7.44	13.1	15.9	18.0	13.0
MAX	14	15	.40	.49	.25	.80	7.7	19	18	21	24	18
MIN	8.8	.45	.03	.00	.00	.08	.40	.69	8.1	11	14	6.6
AC-FT	714	267	10	4.3	2.1	26	101	458	781	976	1110	775

CAL YR 1983 TOTAL 2362.21 MEAN 6.47 MAX 24 MIN .03 AC-FT 4690
WTR YR 1984 TOTAL 2632.58 MEAN 7.19 MAX 24 MIN .00 AC-FT 5220

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06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, Hydrologic Unit 10080014, on left bank 0.5 mi downstream from Trail Creek, 1.0 mi west of Cody city limits, and 5.5 mi downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 mi². Area at site prior to Oct. 1, 1949, 1,502 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to current year. Prior to October 1944, published as "below Shoshone Reservoir".

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft, from topographic map. Prior to Oct. 1, 1949, at site 2.5 mi upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Buffalo Bill Reservoir. (See station 09281500.) Diversions above station for irrigation of about 56,100 acres, of which about 37,900 acres are below station. Diversion, 2.1 mi upstream, to Heart Mountain Canal began in 1943.

AVERAGE DISCHARGE.--21 years (water years 1922-42), prior to Heart Mountain diversion, 1,256 ft³/s, 909,300 acre-ft/yr; 42 years (water years 1943-84), 1,131 ft³/s, 819,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s, June 9, 1981, gage height, 11.57 ft; minimum daily discharge, 14 ft³/s, Nov. 19, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since construction of Buffalo Bill Reservoir in 1909, 18,700 ft³/s, June 15, 1918, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,670 ft³/s, June 30, gage height, 8.55 ft; minimum daily, 351 ft³/s, Oct. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	666	427	518	551	533	520	496	730	1590	7120	1490	986
2	654	428	519	549	534	522	495	787	2260	6310	1540	982
3	610	428	539	552	528	520	494	840	2200	5760	1570	969
4	595	427	546	510	527	520	498	842	1960	5310	1480	894
5	627	428	541	378	528	441	500	844	1980	5240	1330	880
6	630	427	526	380	531	413	500	866	2000	5180	1210	829
7	612	427	524	380	532	442	500	921	1980	5020	1160	825
8	610	430	524	382	533	489	501	960	1760	5040	1190	823
9	612	456	524	392	533	510	500	1000	1540	4820	1170	821
10	612	543	525	413	534	504	498	1070	1560	4180	1170	819
11	607	541	524	506	533	504	509	1080	1570	3570	1160	778
12	615	540	523	532	534	508	567	1130	1560	3160	1060	767
13	632	540	527	532	534	515	680	1180	1350	2880	1090	773
14	632	538	531	534	531	515	656	1200	1010	2720	1080	764
15	630	538	527	537	526	513	657	1280	1100	2480	1080	766
16	629	538	532	539	526	513	687	1310	1350	2280	1080	766
17	629	540	530	539	527	514	821	1300	1350	2120	1080	754
18	628	537	527	539	525	514	849	1320	1360	2000	1080	697
19	620	539	528	538	523	516	853	1340	1370	1900	1080	698
20	621	538	528	537	519	516	848	1340	1540	1930	1080	696
21	622	529	525	539	521	514	846	1340	1990	2210	1030	692
22	623	523	523	540	519	500	840	1340	2770	2220	974	688
23	622	555	535	540	522	499	840	1350	3450	2140	1000	692
24	577	528	537	536	523	499	839	1350	3780	2140	1000	737
25	427	525	537	536	522	498	844	1340	4400	2120	999	693
26	351	533	545	535	522	500	844	1350	5060	2080	977	694
27	409	531	547	535	520	498	840	1300	5140	2020	911	692
28	426	532	546	533	518	499	837	1180	5120	1880	919	675
29	438	523	546	532	518	500	841	1190	6370	1780	910	686
30	429	536	549	532	---	498	857	1210	7370	1450	932	686
31	424	---	550	531	---	496	---	1220	---	1420	984	---
TOTAL	17819	15125	16503	15709	15276	15510	20537	35510	77840	100480	34816	23222
MEAN	575	504	532	507	527	500	685	1145	2595	3241	1123	774
MAX	666	555	550	552	534	522	857	1350	7370	7120	1570	986
MIN	351	427	518	378	518	413	494	730	1010	1420	910	675
AC-FT	35340	30000	32730	31160	30300	30760	40740	70430	154400	199300	69060	46060

CAL YR 1983 TOTAL 396210 MEAN 1086 MAX 5210 MIN 351 AC-FT 785900
WTR YR 1984 TOTAL 388347 MEAN 1061 MAX 7370 MIN 351 AC-FT 770300

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-49, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 06...	0900	636	389	14.0	180	53	11	13	.4	3.0
NOV 21...	1530	503	490	6.5	220	66	14	17	.5	2.2
MAY 11...	0900	1050	381	6.5	150	43	11	22	.8	1.6
JUN 26...	1230	5090	171	13.5	63	17	5.0	13	.7	.90

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 06...	130	63	2.2	.30	15	240	.32	409	.000	.080
NOV 21...	180	80	3.7	.40	7.8	300	.41	406	.000	.240
MAY 11...	130	69	2.4	.30	15	240	.33	687	.000	.070
JUN 26...	65	21	.80	.00	15	110	.15	1530	.000	.030

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY

LOCATION.--Lat 44°34'37", long 108°58'18", in SE¼NW¼NW¼ sec.13, T.53 N., R.101 W., Park County, Hydrologic Unit 10080014, at bridge on U.S. Highway 14A, 160 ft downstream from Dry Gulch, 480 ft upstream from Dry Creek, 0.4 mi south of Trotters Station, and 5.5 mi northeast of Cody.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT							
06...	1130	656	490	8.0	14.0	9.6	109
NOV							
14...	1145	557	740	8.3	4.0	11.5	102
JAN							
06...	1130	401	830	7.9	6.0	10.9	102
FEB							
15...	1130	500	532	8.1	4.5	11.6	106
APR							
03...	0700	495	810	8.0	4.0	11.4	102
JUN							
21...	0630	1760	320	7.9	11.0	10.1	107
26...	1500	5150	280	7.8	14.0	8.7	99
JUL							
10...	1505	4400	240	7.6	14.0	8.6	97
AUG							
08...	1000	1250	395	7.7	14.0	8.8	99
SEP							
05...	1430	1000	380	7.7	15.0	8.5	99

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT						
06...	530	.200	.040	.96	1.0	.070
NOV						
14...	200	.200	.130	1.2	1.3	.050
JAN						
06...	210	<.100	.040	.26	.30	.130
FEB						
15...	93	.100	.170	.13	.30	.050
APR						
03...	160	<.100	.040	.26	.30	.050
JUN						
21...	K180	<.100	<.010	--	.60	.070
26...	K130	<.100	.070	.63	.70	.060
JUL						
10...	K110	<.100	.070	.23	.30	.090
AUG						
08...	300	.200	.070	.23	.30	.130
SEP						
05...	270	.100	.040	.16	.20	.100

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06284400 SHOSHONE RIVER NEAR GARLAND, WY

LOCATION.--Lat 44°44'20", long 108°35'38", in SE¼SE¼ sec.13, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, on right bank 50 ft downstream from bridge on county road, 600 ft downstream from Penrose Dam, 1.3 mi upstream from Bitter Creek, 4.3 mi southeast of Garland, and 8.0 mi east of Powell.

DRAINAGE AREA.--2,036 mi².

PERIOD OF RECORD.--Water years 1974 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
21...	1530	810	14.0	.17	<.01	<.01	<.01	.020	<.010
JUL									
09...	1710	4860	14.0	.04	<.01	<.01	<.01	.030	<.010
SEP									
04...	1510	256	18.0	.04	<.01	<.01	<.01	.020	<.010

06284450 BITTER CREEK BELOW SEWAGE LAGOON, NEAR POWELL, WY

LOCATION.--Lat 44°47'10", long 108°43'44", in SE¼NW¼SW¼ sec.36, T.56 N., R.99 W., Park County, Hydrologic Unit 10080014, 0.7 mi upstream from bridge on County Road 7, 1.9 mi northeast of water tower in Powell, and 3.4 mi northwest of Garland.

PERIOD OF RECORD.--March 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
06...	1410	44	990	7.8	14.0	9.9	111
NOV							
14...	1430	9.5	1850	8.4	5.0	11.9	108
JAN							
13...	0730	4.7	1820	8.3	1.5	11.9	98
FEB							
14...	1600	5.1	2150	8.4	4.0	11.9	106
APR							
03...	1700	2.2	1980	8.3	8.0	10.7	104
MAY							
18...	0730	91	760	8.2	9.0	10.3	102
JUN							
22...	0700	81	690	8.2	12.0	9.4	100
27...	1445	67	700	8.1	14.0	9.2	102
JUL							
09...	1630	71	780	8.1	18.0	8.0	98
AUG							
08...	0720	104	635	8.1	18.5	8.6	107

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
06...	360	1.40	.070	.93	1.0	.130
NOV						
14...	2900	4.00	.080	1.9	2.0	.050
JAN						
13...	1600	3.70	.220	.88	1.1	.120
FEB						
14...	1400	4.30	.270	.73	1.0	.060
APR						
03...	1300	2.70	1.00	2.1	3.1	.920
MAY						
18...	K600	2.00	.120	1.9	2.0	.210
JUN						
22...	1700	1.40	.160	1.7	1.9	.460
27...	1900	1.70	.080	1.4	1.5	.570
JUL						
09...	1800	1.50	.210	2.2	2.4	.900
AUG						
08...	1600	1.20	.110	.69	.80	.300

K-Results based on colony count outside the acceptable range (non-idea colony count).

06284500 BITTER CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼SW¼SW¼ sec.7, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 100 ft downstream from bridge on county road, 1.0 mi upstream from mouth, 4.0 mi southeast of Garland, and 5.0 mi southwest of Byron.

DRAINAGE AREA.--80.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1950 to December 1953, October 1957 to September 1960, October 1968 to current year.

REVISED RECORDS.--WSP 1709: Drainage area. WRD WY 1975: 1960(M), 1969(M), 1973(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft, from topographic map.

REMARKS.--Records good except those for December to Feburary, which are poor. Flow is mainly return flow from Garland Canal system of Shoshone irrigation project.

AVERAGE DISCHARGE.--22 years (water years 1951-53, 1958-60, 1969-84), 142 ft³/s, 102,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, July 4, 1975, gage height, 4.74 ft, from rating curve extended above 580 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, Jan. 30 to Feb. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 688 ft³/s, Aug. 2, gage height, 3.49 ft; minimum daily, 9.6 ft³/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	41	28	18	15	20	16	50	329	289	344	281
2	260	41	28	19	15	20	17	120	337	290	401	252
3	269	40	28	20	14	20	16	119	353	279	357	261
4	252	40	28	20	13	19	16	115	335	298	320	282
5	228	40	28	20	12	19	16	145	305	284	329	244
6	221	39	27	20	13	19	16	166	298	241	328	223
7	213	39	26	20	14	18	16	187	280	238	287	218
8	201	38	25	19	15	18	16	174	269	239	267	232
9	207	36	26	18	15	17	17	190	315	242	254	240
10	209	36	24	18	15	17	17	206	312	238	234	235
11	206	36	24	17	16	17	16	215	336	222	217	227
12	206	35	24	16	17	17	16	210	321	216	236	216
13	202	35	24	15	18	18	16	229	324	228	273	216
14	216	34	24	15	18	19	16	237	320	233	284	219
15	217	33	23	14	18	18	28	221	295	264	266	237
16	207	33	20	14	17	17	55	214	295	266	300	253
17	212	33	17	13	18	17	123	225	286	242	306	244
18	212	33	15	12	17	18	148	229	279	238	300	235
19	195	32	14	13	18	18	140	227	261	244	325	240
20	83	32	13	13	19	18	149	236	247	251	305	261
21	59	31	12	13	20	20	130	245	262	271	266	265
22	53	30	11	14	20	20	132	218	282	310	283	270
23	51	30	10	14	20	19	153	217	275	355	283	289
24	48	30	9.6	15	20	21	142	236	275	338	285	299
25	47	30	11	15	20	21	142	278	267	341	271	222
26	47	29	12	14	20	21	100	284	249	348	271	218
27	45	29	13	15	20	22	56	321	255	340	265	224
28	44	29	13	15	20	21	42	300	249	325	258	225
29	44	28	13	14	20	21	34	307	252	325	267	231
30	43	27	14	13	---	18	33	310	271	308	282	233
31	43	---	16	14	---	16	---	309	---	294	295	---
TOTAL	4797	1019	600.6	490	497	584	1834	6740	8734	8597	8959	7292
MEAN	155	34.0	19.4	15.8	17.1	18.8	61.1	217	291	277	289	243
MAX	269	41	28	20	20	22	153	321	353	355	401	299
MIN	43	27	9.6	12	12	16	16	50	247	216	217	216
AC-FT	9510	2020	1190	972	986	1160	3640	13370	17320	17050	17770	14460

CAL YR 1983 TOTAL 51921.6 MEAN 142 MAX 357 MIN 9.6 AC-FT 103000
WTR YR 1984 TOTAL 50143.6 MEAN 137 MAX 401 MIN 9.6 AC-FT 99460

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-53, 1958-61, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to September 1983.
WATER TEMPERATURES: July 1969 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT											
06...	1600	223	--	--	14.5	--	1.8	.060	1.0	1.1	.100
NOV											
23...	0945	29	--	--	.0	--	2.0	.010	1.6	1.6	.010
JAN											
12...	1500	17	--	--	.0	--	3.4	<.010	--	.40	.030
FEB											
14...	1230	19	1680	8.2	3.0	310	--	--	--	--	--
23...	1330	21	1900	8.2	2.0	--	--	--	--	--	--
MAR											
30...	1130	16	1850	8.4	4.0	530	--	--	--	--	--
APR											
04...	0800	15	2140	8.3	3.0	--	--	--	--	--	--
25...	0830	149	790	7.8	5.0	--	--	--	--	--	--
MAY											
18...	0930	271	710	7.8	9.5	K120	--	--	--	--	--
JUN											
21...	1630	250	760	8.1	16.0	--	--	--	--	--	--
27...	1630	231	780	8.1	17.0	--	--	--	--	--	--
AUG											
15...	1400	269	710	8.0	19.0	1400	--	--	--	--	--
SEP											
06...	0730	237	700	8.1	17.5	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06284800 WHISTLE CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°43'21", long 108°34'16", in NW¼NW¼NE¼ sec.30, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on right bank 300 ft upstream from Elk-Lovell Canal, 5.6 mi southeast of Garland, and 6.3 mi southwest of Byron.

DRAINAGE AREA.--101 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,150 ft, from topographic map. Prior to May 31, 1960, at different datum.

REMARKS.--Records good except those for periods of no gage-height record, Nov. 22 to Mar. 30, July 15 to Aug. 16, which are poor. Part of flow is return flow from areas irrigated by diversions from the Shoshone River.

AVERAGE DISCHARGE.--17 years (water years 1959, 1969-84), 26.7 ft^3/s, 19,340 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft^3/s, July 3, 1975, gage height, 12.44 ft, from floodmarks, on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft^3/s, Jan. 12, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1961, reached a discharge of 4,260 ft^3/s, at site 6.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 113 ft^3/s, Oct 15, gage height, 2.03 ft; minimum daily, 0.40 ft^3/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	2.4	1.9	.82	.56	1.1	1.7	41	38	30	35	48
2	42	2.4	2.0	.82	.56	1.2	1.7	36	42	30	41	50
3	44	2.4	2.1	.92	.52	1.2	1.7	36	44	26	70	47
4	46	2.3	2.1	.92	.49	1.2	2.1	32	42	22	62	46
5	47	2.3	2.0	.92	.45	1.2	2.2	32	36	26	58	38
6	47	2.3	2.0	.92	.43	1.3	2.2	34	50	29	66	43
7	44	2.4	1.9	.90	.42	1.4	2.2	44	38	27	64	39
8	44	2.4	2.0	.84	.42	1.4	2.2	34	49	32	58	41
9	44	2.3	2.1	.80	.42	1.4	2.5	31	58	37	52	43
10	44	2.4	2.1	.82	.42	1.4	8.1	29	52	30	49	44
11	44	2.4	2.1	.76	.42	1.6	3.3	24	49	32	46	43
12	42	2.4	2.0	.70	.43	1.8	2.9	23	42	32	46	41
13	42	2.4	2.0	.66	.44	2.0	2.6	38	46	39	47	44
14	40	2.3	1.9	.62	.44	2.0	2.2	26	55	36	45	39
15	69	2.2	1.7	.58	.43	2.0	2.0	25	47	36	45	41
16	44	2.2	1.3	.60	.43	2.0	5.0	21	44	29	50	40
17	43	2.3	1.1	.58	.47	2.0	9.0	17	45	23	47	37
18	21	2.3	.84	.50	.54	2.0	19	14	45	20	48	35
19	13	2.1	.64	.54	.62	2.0	22	13	43	20	49	39
20	4.7	2.2	.54	.54	.62	2.0	19	15	33	20	47	47
21	3.4	2.0	.48	.56	.62	2.0	19	20	29	20	31	51
22	2.9	1.9	.45	.58	.60	1.9	18	21	27	23	28	49
23	2.8	1.9	.42	.60	.60	1.8	17	21	32	24	28	51
24	2.6	2.0	.40	.64	.60	2.1	15	18	29	26	38	61
25	2.5	2.0	.42	.62	.70	2.1	16	21	33	30	39	51
26	2.5	2.1	.47	.60	.76	2.1	14	36	39	30	45	33
27	2.5	2.0	.50	.62	.84	2.1	26	47	41	32	52	33
28	2.5	2.1	.48	.62	.88	2.0	8.2	40	38	33	51	31
29	2.4	2.0	.52	.58	.96	2.4	40	36	33	36	45	27
30	2.4	1.9	.62	.52	---	2.6	35	35	26	35	48	27
31	2.4	---	.76	.54	---	1.7	---	37	---	35	48	---
TOTAL	836.6	66.3	39.84	21.24	16.09	55.0	321.8	897	1225	900	1478	1259
MEAN	27.0	2.21	1.29	.69	.55	1.77	10.7	28.9	40.8	29.0	47.7	42.0
MAX	69	2.4	2.1	.92	.96	2.6	40	47	58	39	70	61
MIN	2.4	1.9	.40	.50	.42	1.1	1.7	13	26	20	28	27
AC-FT	1660	132	79	42	32	109	638	1780	2430	1790	2930	2500

CAL YR 1983 TOTAL 8611.35 MEAN 23.6 MAX 101 MIN .40 AC-FT 17080
WTR YR 1984 TOTAL 7115.87 MEAN 19.4 MAX 70 MIN .40 AC-FT 14110

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to September 1983.
WATER TEMPERATURES: July 1969 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)
FEB					
14...	1500	.44	3490	8.1	.0
23...	1230	E.60	4310	8.0	.0
MAR					
30...	1400	2.6	5400	8.3	5.0
APR					
04...	0700	2.0	5250	8.3	3.5
25...	0930	4.3	780	8.1	1.5
MAY					
14...	1545	31	810	7.6	18.0
JUN					
22...	1300	46	740	8.0	17.0
27...	1600	46	690	8.1	23.0
AUG					
16...	0830	55	580	8.3	17.0
SEP					
04...	1430	53	600	8.3	19.5

E-Estimate.

06285100 SHOSHONE RIVER NEAR LOVELL, WY

LOCATION.--Lat 44°50'20", long 108°26'00", in NW¼NW¼ sec.16, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on right bank 30 ft upstream from bridge on U.S. Highway 310 and 1.5 mi west of Lovell.

DRAINAGE AREA.--2,350 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,850 ft, from topographic map. Prior to Oct. 1, 1976, at datum 2.00 ft higher, Oct. 1, 1976 to Sept. 30, 1980, at datum 1.00 ft higher.

REMARKS.--Records fair except those for December to February, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Natural flow of stream affected by storage reservoirs, power development, diversions above station for irrigation of about 143,000 acres, of which about 8,000 acres are below station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--18 years, 1,011 ft^3/s, 732,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft^3/s, June 10, 1981, gage height, 9.16 ft present datum; maximum gage height, 10.09 ft, Feb. 3, 1972 (backwater from ice) present datum; minimum daily discharge, 27 ft^3/s, May 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,130 ft^3/s, July 1, gage height, 5.85 ft; minimum daily, 111 ft^3/s, May 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	847	518	896	630	660	657	615	651	223	6020	1260	446
2	838	518	920	620	660	665	615	404	1040	5360	1440	564
3	828	518	929	600	660	683	615	567	1140	4870	1520	613
4	819	518	877	450	660	683	615	448	945	4560	1490	614
5	754	518	820	400	660	675	607	333	791	4300	1340	472
6	822	518	849	380	660	536	588	362	857	4150	1230	450
7	796	518	810	380	660	525	618	357	754	4010	1090	441
8	772	540	778	385	660	549	617	352	876	3970	1050	535
9	763	585	770	440	660	705	617	371	763	3970	985	535
10	760	635	774	510	670	657	629	333	905	3490	895	521
11	745	761	731	530	670	657	609	236	1090	2980	828	500
12	745	792	709	500	670	666	565	226	1070	2520	809	451
13	745	791	703	470	670	757	615	238	985	2310	763	385
14	758	785	700	450	670	829	515	317	709	2180	692	337
15	908	776	704	400	670	781	603	317	510	2000	573	363
16	830	779	703	420	670	780	545	235	745	1810	528	391
17	810	806	720	420	673	750	455	238	1070	1560	542	387
18	879	847	682	390	658	756	653	221	945	1380	548	308
19	910	845	660	410	673	712	599	137	809	1170	628	276
20	981	838	650	410	680	742	718	186	772	1100	649	307
21	877	838	640	560	716	714	646	240	915	1300	516	350
22	876	810	620	650	727	711	644	171	1160	1790	410	417
23	873	809	620	650	754	709	626	111	1620	2100	403	521
24	862	874	620	650	742	763	625	151	1960	1860	485	830
25	747	828	620	650	714	671	689	338	2430	1980	514	1020
26	596	817	620	650	718	649	824	399	3150	1940	609	946
27	452	836	620	650	702	657	803	372	3950	1910	560	881
28	518	871	630	650	670	654	827	378	4190	1810	413	883
29	524	827	640	650	657	614	786	257	4710	1730	307	855
30	533	905	630	660	---	631	725	269	5630	1450	275	834
31	522	---	630	660	---	618	---	275	---	1090	330	---
TOTAL	23690	21821	22275	16275	19714	21156	19208	9490	46714	82670	23682	16433
MEAN	764	727	719	525	680	682	640	306	1557	2667	764	548
MAX	981	905	929	660	754	829	827	651	5630	6020	1520	1020
MIN	452	518	620	380	657	525	455	111	223	1090	275	276
AC-FT	46990	43280	44180	32280	39100	41960	38100	18820	92660	164000	46970	32590

CAL YR 1983 TOTAL 364861 MEAN 1000 MAX 4570 MIN 171 AC-FT 723700
WTR YR 1984 TOTAL 323128 MEAN 883 MAX 6020 MIN 111 AC-FT 640900

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to September 1983.
WATER TEMPERATURES: October 1966 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
FEB											
16...	0930	664	789	.0	310	82	25	58	1	3.9	216
MAR											
29...	1530	634	806	8.0	290	77	24	65	2	4.3	210
JUN											
28...	1330	4350	300	16.5	97	27	7.3	23	1	1.8	87
AUG											
15...	1000	590	728	20.0	230	59	20	69	2	2.9	178

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
FEB										
16...	220	8.8	.60	16	540	.74	975	.530	.060	.010
MAR										
29...	220	12	.50	12	540	.74	926	.230	.040	.030
JUN										
28...	54	2.1	.20	15	180	.25	2140	.360	.250	.040
AUG										
15...	190	8.8	.50	15	470	.64	752	1.10	.120	.030

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY

LOCATION.--Lat 44°53'08", long 108°33'01", in NE¼NE¼NW¼ sec.34, T.57 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 300 ft downstream from Polecat Creek, 800 ft upstream from Sidon Canal crossing, and 2.4 mi east of Deaver.

DRAINAGE AREA.--341 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft, from topographic map.

REMARKS.--Records good except those for December to March, which are poor. Flow is mostly return flow from land irrigated by canals diverting water from Shoshone River.

AVERAGE DISCHARGE.--17 years (water years 1959, 1969-84), 65.3 ft³/s, 47,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s June 8, 1958, gage height, 9.22 ft, from floodmark, from rating curve extended above 500 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, Feb. 2-6, Feb. 21 to Mar. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 245 ft³/s, Oct. 10, gage height, 3.94 ft; minimum daily, 6.0 ft³/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	35	24	12	11	21	19	20	131	94	98	94
2	215	35	25	12	11	23	18	96	123	85	100	101
3	206	33	26	13	10	25	15	102	111	76	184	110
4	199	27	26	13	9.5	24	15	83	106	83	154	108
5	193	27	25	13	9.0	23	14	74	104	83	149	124
6	207	27	25	13	9.5	23	15	73	106	80	166	120
7	211	29	24	13	10	24	15	108	105	72	159	122
8	215	28	26	12	11	22	13	121	101	83	142	127
9	221	27	27	11	11	22	16	126	136	78	134	127
10	223	27	27	12	11	22	15	131	132	73	124	122
11	223	28	27	11	11	23	13	120	161	76	119	122
12	228	29	26	10	12	24	11	99	172	78	119	116
13	212	30	25	9.5	13	24	10	75	172	78	120	110
14	185	30	23	9.0	13	24	8.6	57	163	65	117	120
15	192	25	21	8.5	13	22	8.4	54	178	67	117	126
16	185	26	17	9.0	12	22	31	112	185	57	129	144
17	186	27	14	8.0	13	22	67	144	178	51	130	149
18	183	27	12	7.0	12	22	120	94	172	46	115	150
19	186	26	10	8.0	13	22	140	84	152	46	102	149
20	126	26	8.5	8.0	15	23	125	82	128	45	102	142
21	43	27	7.5	8.5	16	21	121	92	126	45	100	127
22	33	25	7.0	9.0	18	19	121	90	132	54	95	133
23	33	24	6.5	9.5	18	17	109	77	132	61	100	149
24	33	25	6.0	10	18	18	89	70	126	67	98	182
25	38	26	7.0	9.5	17	18	93	78	119	77	100	202
26	39	27	8.0	9.0	17	18	95	82	105	77	107	165
27	44	26	8.5	10	17	18	88	84	93	81	106	146
28	42	27	8.0	10	18	16	71	80	88	88	87	147
29	38	25	8.5	9.5	19	17	35	80	84	93	76	138
30	36	23	9.5	9.0	---	17	22	82	87	92	83	138
31	35	---	11	10	---	19	---	87	---	89	82	---
TOTAL	4418	824	526.0	316.0	388.0	655	1533.0	2757	3908	2240	3614	4010
MEAN	143	27.5	17.0	10.2	13.4	21.1	51.1	88.9	130	72.3	117	134
MAX	228	35	27	13	19	25	140	144	185	94	184	202
MIN	33	23	6.0	7.0	9.0	16	8.4	20	84	45	76	94
AC-FT	8760	1630	1040	627	770	1300	3040	5470	7750	4440	7170	7950

CAL YR 1983 TOTAL 26026.0 MEAN 71.3 MAX 228 MIN 6.0 AC-FT 51620
WTR YR 1984 TOTAL 25189.0 MEAN 68.8 MAX 228 MIN 6.0 AC-FT 49960

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to September 1983.
WATER TEMPERATURES: July 1969 to November 1976, September 1977 to September 1983.

REMARKS.--Daily temperature readings not available for water year 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
FEB 15...	1500	13	3460	.0	1100	220	140	480	6	6.1	385
MAR 30...	0930	17	3210	5.0	940	180	120	420	6	6.2	320
MAY 10...	0900	--	1550	--	590	130	64	160	3	5.1	230
JUN 22...	0930	136	1040	14.5	350	84	34	100	2	3.2	175
AUG 15...	1130	125	1140	18.5	380	93	36	120	3	3.8	190

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
FEB 15...	1700	28	.80	12	2800	3.8	99	2.40	.250	.010
MAR 30...	1500	28	.70	9.6	2500	3.3	113	1.50	.290	.020
MAY 10...	630	17	.50	14	1200	1.6	--	.400	.080	--
JUN 22...	370	6.5	.40	14	720	.98	263	.650	.160	.050
AUG 15...	430	8.4	.50	15	820	1.1	277	.870	.310	.100

06286200 SHOSHONE RIVER AT KANE, WY

LOCATION.--Lat 44°51'31", long 108°19'52", in NE¼SE¼SE¼ sec.6, T.56 N., R.95 W., Big Horn County, Hydrologic Unit 10080014, at bridge on county road, 3.4 mi northeast of Lovell, 6.5 mi west of Kane, 6.6 mi upstream from high-water line of Bighorn Lake at elevation 3,640 ft, and 7.8 mi upstream from former discharge station.

DRAINAGE AREA.--2,989 mi^2, at former discharge station.

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
05...	1400	932	920	8.4	13.0	10.3	110
NOV							
15...	1130	787	900	8.3	4.5	12.0	109
JAN							
17...	0840	424	930	8.2	.0	13.0	100
JUN							
28...	1445	4380	341	8.2	17.0	9.1	106
AUG							
15...	1330	663	420	8.3	20.0	7.4	95

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
05...	530	1.00	.130	.97	1.1	.180
NOV						
15...	360	.800	.120	1.2	1.3	.030
JAN						
17...	530	.700	.130	--	<.20	.030
JUN						
28...	330	.300	.020	1.2	1.2	.210
AUG						
15...	230	1.30	.070	.93	1.0	.290

06286400 BIGHORN LAKE NEAR ST. XAVIER, MT

LOCATION.--Lat 45°18'27", long 107°57'26", in SW¼SE¼ sec.18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi upstream from Grapevine Creek, 15.5 mi southeast of St. Xavier, and at mile 86.6.

DRAINAGE AREA.--19,626 mi².

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir."

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is referenced to National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,356,000 acre-ft between elevation 3,296.50 ft, river outlet invert, and 3,657.00 ft, top of flood control. Elevation of spillway crest, 3,593.00 ft. Normal maximum operating level, 1,097,000 acre-ft, elevation, 3,640.00 ft. Minimum operating level, 483,400 acre-ft, elevation, 3,547.00 ft. Dead storage, 18,970 acre-ft below elevation 3,296.50 ft. Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,346,000 acre-ft, July 6, 1967, elevation, 3,656.43 ft; minimum since first filling, 660,700 acre-ft, Mar. 11, 1970, elevation, 3,584.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,108,000 acre-ft, Aug. 7, elevation, 3,640.83 ft; minimum, 809,500 acre-ft, Mar. 10, elevation, 3,608.44 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,635.52	1,043,000	--
Oct. 31	3,635.59	1,044,000	+1,000
Nov. 30	3,630.16	986,300	-57,700
Dec. 31	3,619.82	894,600	-91,700
CAL YR 1983			-71,400
Jan. 31	3,615.44	860,600	-34,000
Feb. 29	3,609.97	820,100	-40,500
Mar. 31	3,611.98	831,900	+11,800
Apr. 30	3,611.71	830,200	-1,700
May 31	3,623.74	927,200	+97,000
June 30	3,638.22	1,075,000	+147,800
July 31	3,639.46	1,090,000	+15,000
Aug. 31	3,636.75	1,057,000	-33,000
Sept. 30	3,637.74	1,069,000	+12,000
WTR YR 1984			+26,000

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT

LOCATION.--Lat 45°19'00", long 107°55'05", in NW¼NE¼ sec.16, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080015, on right bank 800 ft downstream from Yellowtail afterbay dam, 1,500 ft downstream from Lime Kiln Creek, 14 mi southwest of St. Xavier, and at mile 83.9.

DRAINAGE AREA.--19,667 mi². Area at site used prior to Apr. 16, 1963, 19,626 mi².

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,158.38 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 16, 1963, and June 13, 1964, to Mar. 31, 1965, water-stage recorder at site 1.2 mi upstream at different datum. Apr. 1, 1965, to July 31, 1966, water-stage recorder at site 1,300 ft downstream at present datum.

REMARKS.--Records good. Figures of discharge given herein are sum of river flow and flow of Bighorn Canal. Some regulation by 14 reservoirs in Wyoming with combined capacity of 1,400,000 acre-ft and complete regulation by Bighorn Lake (see preceding page) since Nov. 3, 1965. Diversions for irrigation of about 375,000 acres above station.

AVERAGE DISCHARGE.--50 years, 3,603 ft³/s, 2,610,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft³/s, June 16, 1935; minimum observed, 49 ft³/s, Mar. 29, 1966, result of discharge measurement (dam closure); minimum daily, 112 ft³/s, Apr. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,670 ft³/s, July 8; minimum daily, 1,320 ft³/s, Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3980	4620	4640	3590	2940	3430	2980	3530	4880	6540	3960	3140
2	3980	4630	4610	3590	2990	3420	2980	3540	5550	6550	3960	3140
3	3980	4640	3620	3590	2980	3420	2970	3540	5590	6550	3940	3130
4	3990	4640	3630	3590	2980	3440	2960	3540	5580	6550	4620	3140
5	4030	4640	3620	3500	2980	3450	2970	3530	5560	6550	4660	3150
6	4020	4640	3620	3450	2980	3440	2970	3530	5620	6570	4640	3190
7	4020	4640	3630	3440	2980	3440	2960	3530	5740	6560	4660	3170
8	4030	4650	3630	3430	2980	3440	2970	3530	5740	6590	4650	3160
9	4030	4640	3620	3430	2980	3020	2970	3530	5750	6570	4630	3160
10	4030	4650	3630	3430	3400	3020	3370	3810	5750	6580	4620	3160
11	4040	4630	3630	3160	3430	3020	3370	3790	5760	6590	4620	3230
12	4050	4640	3620	2920	3430	3020	3370	4430	5760	6590	4610	3230
13	4050	4650	3620	2920	3430	3020	3370	4400	5760	6570	4600	3520
14	4050	4650	3630	2910	3430	3020	3360	4410	5780	5760	4600	3530
15	4060	4640	3630	2920	3440	3020	3370	4420	5790	5720	4590	3520
16	4070	4650	3630	2910	3430	3020	3370	4410	5800	5730	4590	3530
17	4070	4640	3620	2900	3440	3020	3380	4430	5790	4810	4570	3530
18	4070	4640	3630	2910	3430	3030	3370	4400	5800	4790	3750	3520
19	2920	4640	3620	2910	3440	3020	3350	4880	5770	3990	3720	3530
20	1320	4640	3600	2900	3440	3020	3350	4890	5730	3910	3700	3540
21	4080	4650	3610	2910	3430	3010	3350	4860	5560	3340	3700	3540
22	4580	4640	3600	2900	3430	3000	3350	4870	5810	3310	3690	3550
23	4590	4650	3600	2900	3430	2990	3350	4850	5780	3300	3680	3550
24	4590	4640	3600	2900	3430	2990	3360	4860	5800	3280	3680	3540
25	4590	4650	3610	2900	3430	3000	3350	4860	5790	3280	3680	3540
26	4600	4640	3610	2890	3420	2990	3370	4860	5820	3270	3680	3540
27	4610	4650	3610	2890	3430	2990	3340	4870	5830	3270	3660	4040
28	4620	4640	3610	2890	3430	2980	3350	4880	5820	3270	3660	4110
29	4620	4640	3590	2880	3430	2980	3330	4860	6500	3260	3650	4120
30	4630	4650	3590	2900	---	2980	3340	4860	6530	3250	3640	4120
31	4640	---	3590	2900	---	2990	---	4850	---	3970	3630	---
TOTAL	126940	139260	114100	96260	95390	96630	97250	133550	172740	156870	128040	103870
MEAN	4095	4642	3681	3105	3289	3117	3242	4308	5758	5060	4130	3462
MAX	4640	4650	4640	3590	3440	3450	3380	4890	6530	6590	4660	4120
MIN	1320	4620	3590	2880	2940	2980	2960	3530	4880	3250	3630	3130
AC-FT	251800	276200	226300	190900	189200	191700	192900	264900	342600	311200	254000	206000

CAL YR 1983 TOTAL 1672320 MEAN 4582 MAX 10900 MIN 1320 AC-FT 3317000
WTR YR 1984 TOTAL 1460900 MEAN 3992 MAX 6590 MIN 1320 AC-FT 2898000

06288600 LITTLE BIGHORN RIVER BELOW DAYTON GULCH, NEAR BURGESS JUNCTION, WY

LOCATION.--Lat 44°50'23", long 107°45'18", in SW¼SE¼SW¼ sec.12, T.56 N., R.91 W., Sheridan County, Hydrologic Unit 10080016, on left bank 150 ft downstream from Dayton Gulch, and 12 mi northwest of Burgess Junction.

DRAINAGE AREA.--15.9 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,240 ft, from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 15 to Jan. 12, and Apr. 11 to May 10, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 368 ft^3/s, June 11, 1983, gage height, 3.61 ft; minimum daily, 2.7 ft^3/s, Apr. 15, 17, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 329 ft^3/s, June 15, gage height, 3.42 ft; minimum daily, 3.0 ft^3/s, Feb. 15, 29, Mar. 1-3, Apr. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	6.5	4.3	4.1	3.3	3.0	3.3	3.9	192	65	19	10
2	8.5	6.4	4.4	4.1	3.2	3.0	3.1	3.9	141	61	18	9.8
3	8.0	6.3	4.4	4.2	3.1	3.0	3.2	3.9	125	57	23	9.6
4	7.8	6.2	4.4	4.3	3.3	3.1	3.4	3.9	124	54	19	9.5
5	8.2	6.2	4.2	4.5	3.4	3.1	3.3	3.9	128	51	18	9.2
6	7.7	6.2	4.3	4.5	3.4	3.1	3.3	3.8	120	47	17	8.8
7	7.6	6.2	4.4	4.4	3.5	3.1	3.5	3.8	115	45	17	8.9
8	7.0	6.0	4.4	4.3	3.5	3.1	3.4	4.0	102	44	16	9.0
9	7.1	5.8	4.4	4.2	3.4	3.3	3.4	4.2	89	41	16	9.0
10	7.1	5.8	4.6	4.2	3.1	3.5	3.3	4.6	79	39	15	8.7
11	6.9	5.6	4.7	4.1	3.1	3.3	3.3	5.7	82	36	15	8.6
12	6.9	5.6	4.7	4.1	3.1	3.3	3.2	7.4	84	34	15	8.8
13	7.0	5.5	4.6	3.9	3.1	3.1	3.2	12	137	32	15	8.2
14	6.7	5.4	4.6	3.9	3.1	3.3	3.2	23	199	32	14	8.2
15	6.6	5.5	4.5	3.9	3.0	3.3	3.3	33	228	31	13	8.2
16	6.6	5.6	4.3	3.9	3.1	3.1	3.4	71	208	29	13	8.2
17	6.6	5.5	4.2	3.7	3.3	3.3	3.8	79	160	28	13	7.9
18	6.6	5.6	4.0	3.5	3.1	3.3	4.1	73	158	27	13	7.7
19	6.6	5.4	4.0	3.5	3.1	3.1	4.2	79	145	27	13	7.7
20	6.8	5.2	3.9	3.4	3.1	3.3	4.2	104	133	26	13	7.6
21	6.8	5.1	3.8	3.3	3.1	3.3	4.1	106	133	25	12	8.4
22	6.8	4.9	3.6	3.1	3.1	3.3	4.2	82	116	26	12	8.2
23	6.8	4.9	3.6	3.1	3.1	3.3	4.3	90	101	25	11	8.1
24	6.7	4.9	3.6	3.1	3.1	3.4	4.1	103	95	23	11	7.5
25	7.0	5.0	3.5	3.1	3.1	3.5	3.9	80	90	23	11	7.4
26	7.2	4.8	3.6	3.1	3.1	3.3	3.3	72	86	22	11	7.4
27	7.2	4.6	3.7	3.1	3.1	3.2	3.0	63	81	21	11	7.3
28	7.0	4.6	3.6	3.1	3.1	3.1	3.5	62	76	21	10	7.2
29	6.8	4.6	3.7	3.1	3.0	3.1	3.9	87	72	20	10	7.2
30	6.8	4.5	3.8	3.1	---	3.1	3.9	139	73	19	9.9	7.1
31	6.7	---	3.9	3.2	---	3.1	---	232	---	19	10	---
TOTAL	220.7	164.4	127.7	115.1	92.1	99.4	107.3	1643.0	3672	1050	433.9	249.4
MEAN	7.12	5.48	4.12	3.71	3.18	3.21	3.58	53.0	122	33.9	14.0	8.31
MAX	8.6	6.5	4.7	4.5	3.5	3.5	4.3	232	228	65	23	10
MIN	6.6	4.5	3.5	3.1	3.0	3.0	3.0	3.8	72	19	9.9	7.1
AC-FT	438	326	253	228	183	197	213	3260	7280	2080	861	495

CAL YR 1983 TOTAL 6573.8 MEAN 18.0 MAX 206 MIN 2.7 AC-FT 13040
WTR YR 1984 TOTAL 7975.0 MEAN 21.8 MAX 232 MIN 3.0 AC-FT 15820

06288700 DRY FORK BELOW LICK CREEK, NEAR BURGESS JUNCTION, WY

LOCATION.--Lat 44°53'06", long 107°36'48", in SW¼NW¼SE¼ sec.28, T.57 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on left bank 15 ft downstream from Lick Creek, 5.2 mi upstream from mouth, and 9 mi northwest of Burgess Junction.

DRAINAGE AREA.--54.1 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,100 ft, from topographic map. Supplementary gage on right bank 15 ft downstream at datum 0.49 ft higher.

REMARKS.--Records good. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 429 ft^3/s, May 31, 1984, gage height, 3.23 ft; minimum daily, 14 ft^3/s, Apr. 26, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 429 ft^3/s, May 31, gage height, 3.23 ft; minimum daily, 14 ft^3/s, Apr. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	27	23	24	21	20	19	25	329	163	63	44
2	32	27	25	24	21	19	20	25	267	156	63	43
3	32	27	25	24	21	20	20	26	247	149	62	42
4	32	27	26	23	21	18	19	26	236	141	61	42
5	32	28	24	23	21	19	20	26	244	135	59	41
6	31	28	25	23	21	19	20	24	239	130	58	42
7	31	27	26	23	21	19	21	24	231	124	58	43
8	30	25	26	23	20	19	20	25	212	120	57	42
9	30	23	26	23	21	19	21	28	200	114	56	42
10	30	26	25	23	21	19	21	31	186	109	56	41
11	30	29	24	23	21	19	21	34	192	105	56	41
12	29	28	24	23	20	19	21	46	187	101	55	41
13	30	27	24	22	20	19	21	72	210	98	55	40
14	30	26	24	21	20	19	20	110	251	94	54	39
15	30	25	23	18	20	18	21	182	285	91	54	39
16	29	26	23	25	20	18	23	236	325	88	53	39
17	29	26	15	19	21	19	26	220	308	86	51	39
18	30	26	16	20	20	19	28	196	298	84	51	38
19	29	25	21	22	18	19	28	206	280	83	50	39
20	29	25	21	22	21	19	28	250	272	81	50	39
21	29	25	21	24	21	20	27	258	268	79	49	40
22	29	23	23	24	20	20	27	216	262	77	48	40
23	29	21	24	22	20	20	28	214	242	75	48	40
24	28	24	24	22	20	20	26	235	229	73	48	39
25	28	26	24	22	20	20	24	203	220	71	48	38
26	28	25	24	22	20	20	14	181	208	70	48	38
27	28	24	24	22	19	20	16	163	196	69	46	38
28	28	24	24	22	19	19	22	153	188	67	45	38
29	28	24	24	22	20	19	25	173	181	66	44	38
30	27	19	24	21	---	19	26	239	176	65	44	38
31	28	---	24	21	---	19	---	338	---	64	44	---
TOTAL	917	763	726	692	589	595	673	4185	7169	3028	1634	1203
MEAN	29.6	25.4	23.4	22.3	20.3	19.2	22.4	135	239	97.7	52.7	40.1
MAX	32	29	26	25	21	20	28	338	329	163	63	44
MIN	27	19	15	18	18	18	14	24	176	64	44	38
AC-FT	1820	1510	1440	1370	1170	1180	1330	8300	14220	6010	3240	2390

CAL YR 1983 TOTAL 17414 MEAN 47.7 MAX 261 MIN 15 AC-FT 34540
WTR YR 1984 TOTAL 22174 MEAN 60.6 MAX 338 MIN 14 AC-FT 43980

06288975 ELKHORN CREEK ABOVE FULLER RANCH DITCH, NEAR PARKMAN, WY

LOCATION.--Lat 44°59'01", long 107°36'53", in SE¼NE¼SW¼ sec.21, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on right bank 68 ft upstream from Fuller Ranch Ditch, 1.5 mi upstream from mouth, and 15 mi west of Parkman.

DRAINAGE AREA.--4.58 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,840 ft, from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Dec. 6 to Jan. 12, and Jan. 15 to Feb. 21, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82 ft³/s, May 15, 1984, gage height, 2.40 ft, from floodmarks; maximum gage height, 3.19 ft, Apr. 28, 1984 (backwater from ice); minimum daily discharge, 1.1 ft³/s, Dec. 26, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 82 ft³/s, May 15, gage height, 2.40 ft, from floodmarks; maximum gage height, 3.19 ft, Apr. 28 (backwater from ice); minimum daily discharge, 1.1 ft³/s, Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.6	1.2	1.4	1.6	1.4	1.9	3.9	25	6.6	3.0	2.2
2	1.9	1.6	1.2	1.5	1.6	1.4	1.9	3.9	17	6.1	3.0	2.2
3	1.9	1.6	1.2	1.5	1.6	1.5	1.8	3.9	14	5.7	2.9	2.2
4	1.8	1.6	1.3	1.6	1.5	1.4	1.8	4.1	13	5.3	2.8	2.2
5	1.8	1.6	1.3	1.6	1.5	1.4	2.0	4.3	14	5.1	2.8	2.2
6	1.7	1.6	1.3	1.6	1.5	1.5	2.4	4.5	17	5.0	2.8	2.2
7	1.7	1.6	1.3	1.6	1.5	1.5	2.7	4.3	14	4.9	2.7	2.2
8	1.7	1.5	1.3	1.6	1.5	1.5	2.8	4.6	13	4.7	2.7	2.2
9	1.7	1.5	1.4	1.5	1.4	1.5	3.1	8.2	12	4.5	2.6	2.1
10	1.8	1.5	1.4	1.5	1.4	1.4	3.1	15	10	4.2	2.6	2.1
11	1.8	1.5	1.5	1.4	1.4	1.5	3.2	15	10	3.9	2.6	2.1
12	1.7	1.6	1.6	1.4	1.4	1.5	2.8	25	10	3.9	2.6	2.1
13	1.7	1.6	1.6	1.3	1.4	1.5	2.8	38	11	3.9	2.6	1.9
14	1.7	1.5	1.6	1.3	1.5	1.6	2.6	44	14	3.8	2.6	1.9
15	1.7	1.5	1.6	1.3	1.4	1.6	2.7	70	19	3.6	2.5	1.9
16	1.7	1.5	1.6	1.3	1.4	1.6	3.4	68	19	3.4	2.4	1.9
17	1.7	1.5	1.5	1.3	1.4	1.6	4.9	46	16	3.4	2.4	1.9
18	1.8	1.5	1.4	1.3	1.4	1.7	7.4	33	14	3.4	2.4	1.9
19	1.8	1.5	1.3	1.3	1.4	1.6	8.2	27	13	3.4	2.4	1.9
20	1.7	1.5	1.2	1.3	1.4	1.6	8.6	31	13	3.4	2.4	1.9
21	1.7	1.5	1.2	1.4	1.4	1.7	8.0	34	13	3.4	2.3	2.2
22	1.7	1.5	1.2	1.4	1.5	2.1	7.3	24	13	3.2	2.3	2.1
23	1.7	1.5	1.2	1.5	1.5	2.0	7.1	20	11	3.1	2.3	2.0
24	1.7	1.5	1.2	1.5	1.5	2.2	6.6	21	10	3.1	2.3	2.2
25	1.7	1.5	1.2	1.5	1.5	2.4	6.1	19	9.5	3.1	2.3	2.1
26	1.7	1.4	1.1	1.6	1.5	2.3	4.2	15	8.9	3.1	2.3	2.1
27	1.6	1.4	1.2	1.7	1.4	2.2	6.6	12	8.6	3.1	2.3	2.1
28	1.6	1.4	1.3	1.7	1.3	2.1	5.6	11	7.9	3.1	2.3	1.9
29	1.6	1.4	1.3	1.7	1.4	2.1	4.8	11	7.3	3.1	2.3	1.9
30	1.6	1.3	1.3	1.7	---	2.1	4.1	17	7.0	3.0	2.2	1.9
31	1.6	---	1.3	1.7	---	1.9	---	29	---	3.0	2.2	---
TOTAL	53.4	45.3	41.3	46.0	42.2	53.4	130.5	666.7	384.2	122.5	77.9	61.7
MEAN	1.72	1.51	1.33	1.48	1.46	1.72	4.35	21.5	12.8	3.95	2.51	2.06
MAX	1.9	1.6	1.6	1.7	1.6	2.4	8.6	70	25	6.6	3.0	2.2
MIN	1.6	1.3	1.1	1.3	1.3	1.4	1.8	3.9	7.0	3.0	2.2	1.9
AC-FT	106	90	82	91	84	106	259	1320	762	243	155	122

CAL YR 1983 TOTAL 1035.1 MEAN 2.84 MAX 17 MIN 1.1 AC-FT 2050
WTR YR 1984 TOTAL 1725.1 MEAN 4.71 MAX 70 MIN 1.1 AC-FT 3420

06288990 WEST FORK LITTLE BIGHORN RIVER NEAR PARKMAN, WY

LOCATION.--Lat 44°59'54", long 107°37'58", in SW¼NW¼SE¼ sec.17, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on right bank 0.3 mi upstream from mouth and 16 mi west of Parkman.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--October 1969 to September 1972, October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,430 ft, from topographic map. October 1969 to September 1972, at site 0.2 mi downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--5 years (water years 1970-72, 1983-84), 32.8 ft³/s, 23,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 395 ft³/s, June 10, 1970, gage height, 2.65 ft, site and datum then in use; maximum gage height recorded, 3.09 ft (backwater from ice, site and datum then in use) from recorded range in stage, during period Dec. 26, 1971 to Jan. 11, 1972, but may have been higher during periods of no gage-height record; minimum daily discharge, 6.0 ft³/s, Jan. 5, 1970, Feb. 8, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 210 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	0500	*280	*2.95	May 31	2330	239	2.73

Minimum daily discharge, 8.4 ft³/s, Dec. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	12	11	12	12	11	17	195	71	27	23
2	18	15	13	12	12	11	11	16	174	66	28	23
3	18	15	14	12	12	12	11	17	158	61	29	21
4	18	15	13	13	12	11	11	18	149	58	28	21
5	18	15	13	13	12	11	12	18	148	53	27	21
6	17	14	12	13	12	12	12	20	144	51	27	21
7	17	15	12	13	12	12	12	19	142	48	27	22
8	17	14	11	12	12	11	12	20	133	46	27	22
9	17	13	11	12	12	11	13	27	117	43	27	23
10	17	14	12	12	12	11	12	37	96	42	26	21
11	17	15	12	12	12	11	13	39	89	41	26	21
12	17	15	12	12	12	11	12	51	84	39	26	21
13	17	15	12	12	12	11	13	85	86	38	26	21
14	17	14	12	11	12	11	12	125	119	37	25	20
15	17	13	11	10	11	11	12	205	152	36	25	20
16	16	13	10	9.9	12	11	13	245	166	34	25	20
17	16	14	9.4	9.5	12	11	16	215	161	34	25	20
18	16	13	8.4	9.3	12	11	19	172	151	33	24	20
19	17	13	9.0	9.1	11	11	20	160	147	33	24	20
20	16	13	9.5	9.2	12	11	21	172	143	33	24	20
21	16	13	9.8	9.4	12	11	20	191	136	32	24	21
22	16	13	10	9.8	12	11	19	164	135	32	23	20
23	16	13	10	10	12	11	19	138	125	31	23	20
24	16	13	10	11	12	12	19	165	112	30	23	22
25	16	14	10	12	12	12	18	149	102	29	23	22
26	16	13	10	11	12	12	15	121	93	28	24	20
27	16	12	10	11	12	12	12	100	87	28	23	21
28	15	13	10	12	12	11	18	87	83	28	23	20
29	15	12	10	11	12	12	24	96	78	28	23	19
30	15	10	10	11	---	11	20	146	76	27	23	20
31	15	---	11	11	---	11	---	198	---	27	23	---
TOTAL	513	409	339.1	346.2	346	350	452	3233	3781	1217	778	626
MEAN	16.5	13.6	10.9	11.2	11.9	11.3	15.1	104	126	39.3	25.1	20.9
MAX	18	15	14	13	12	12	24	245	195	71	29	23
MIN	15	10	8.4	9.1	11	11	11	16	76	27	23	19
AC-FT	1020	811	673	687	686	694	897	6410	7500	2410	1540	1240

CAL YR 1983 TOTAL 8673.1 MEAN 23.8 MAX 151 MIN 8.4 AC-FT 17200
WTR YR 1984 TOTAL 12390.3 MEAN 33.9 MAX 245 MIN 8.4 AC-FT 24580

06289000 LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'25", long 107°36'52", in SW¼NW¼ sec.36, T.9 S., R.33 E., Bighorn County, Hydrologic Unit 10080016, on right bank 20 ft downstream from county bridge, 0.5 mi north of Wyoming-Montana State line, 1.0 mi downstream from West Fork, 13 mi southwest of Wyola, and at mile 115.2.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--March 1939 to current year. Prior to October 1940, published as Little Horn River at State line, near Wyola.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,350 ft, from topographic map.

REMARKS.--Records good. Diversions for irrigation of 163 acres above station.

AVERAGE DISCHARGE.--45 years, 155 ft³/s, 112,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft³/s, June 3, 1944, gage height, 4.87 ft, from rating curve extended above 1,400 ft³/s; maximum gage height recorded, 5.93 ft, June 9, 1944 (log jam); minimum discharge, 21 ft³/s, Dec. 27, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 510 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	2345	1,100	3.44	May 31	2115	*1,580	*4.00
May 20	2315	1,010	3.32	June 16	2015	1,290	3.67

Minimum daily discharge, 25 ft³/s, Dec. 24, result of freezup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	79	49	85	63	60	62	95	1160	489	183	117
2	95	79	55	83	63	61	62	93	874	464	186	115
3	95	78	69	83	62	62	60	92	793	445	188	113
4	92	78	80	80	62	62	61	93	761	422	178	111
5	94	79	69	80	62	62	63	94	810	402	172	110
6	92	78	69	76	62	63	65	95	763	383	169	113
7	92	80	72	76	62	62	66	91	738	370	166	116
8	90	73	71	74	61	62	66	95	679	358	164	114
9	88	68	73	73	61	61	70	122	621	345	162	116
10	91	77	73	71	63	61	69	170	560	329	159	110
11	90	82	70	73	63	61	69	179	576	313	157	110
12	88	79	69	71	63	62	67	239	552	301	155	110
13	89	76	68	73	63	61	67	343	636	293	153	106
14	91	76	68	52	64	62	65	468	863	281	151	105
15	93	72	62	38	61	62	66	761	1020	270	150	105
16	88	75	62	52	62	62	73	988	1100	262	149	104
17	86	74	30	33	63	62	87	822	956	255	148	101
18	88	74	26	30	62	63	98	713	898	250	145	99
19	81	72	28	40	55	62	107	723	854	246	142	98
20	80	71	28	45	62	61	109	865	830	239	144	100
21	80	73	27	60	63	62	104	888	818	236	142	110
22	81	66	27	83	62	64	100	719	787	240	136	108
23	83	59	26	81	61	62	104	702	707	228	134	108
24	81	71	25	78	61	64	96	779	648	218	134	103
25	81	80	27	74	62	65	95	653	620	211	134	101
26	82	72	35	69	62	64	54	571	592	200	130	103
27	81	69	45	68	60	65	41	523	568	197	125	102
28	79	71	56	68	60	62	79	497	549	194	125	93
29	79	67	70	68	61	62	101	581	532	190	121	95
30	79	42	87	66	---	62	100	832	521	187	116	101
31	80	---	88	63	---	62	---	1270	---	182	116	---
TOTAL	2687	2190	1704	2066	1791	1928	2326	15156	22386	9000	4634	3197
MEAN	86.7	73.0	55.0	66.6	61.8	62.2	77.5	489	746	290	149	107
MAX	98	82	88	85	64	65	109	1270	1160	489	188	117
MIN	79	42	25	30	55	60	41	91	521	182	116	93
AC-FT	5330	4340	3380	4100	3550	3820	4610	30060	44400	17850	9190	6340

CAL YR 1983 TOTAL 52769 MEAN 145 MAX 1030 MIN 25 AC-FT 104700
WTR YR 1984 TOTAL 69065 MEAN 189 MAX 1270 MIN 25 AC-FT 137000

06289100 RED CANYON CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°58'42", long 107°35'09", in NW¼NE¼NE¼ sec.27, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on right bank 0.2 mi upstream from bridge on county road, 1.7 mi upstream from Fuller Ranch, 2.1 mi upstream from the Wyoming-Montana State line, 2.5 mi upstream from mouth (Powers Upper Ditch), and 13 mi west of Parkman.

DRAINAGE AREA.--3.20 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,810 ft, from topographic map.

REMARKS.--Records fair except those for December and January, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 ft^3/s, May 15, 1984, gage height, 2.45 ft, from floodmarks; minimum daily, 0.28 ft^3/s, Dec. 17, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90 ft^3/s, May 15, gage height, 2.45 ft, from floodmarks; minimum daily, 0.28 ft^3/s, Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	.39	.31	.39	.50	.39	.97	3.4	16	3.6	.83	.37
2	.63	.39	.32	.43	.50	.36	.96	3.3	11	3.4	1.0	.37
3	.63	.39	.33	.46	.43	.38	.90	3.5	9.0	3.2	.80	.37
4	.58	.39	.33	.50	.42	.38	.95	3.7	9.0	2.9	.76	.37
5	.50	.39	.33	.55	.42	.39	1.1	3.8	9.7	2.7	.67	.37
6	.46	.36	.34	.60	.42	.41	1.4	3.6	10	2.6	.67	.37
7	.46	.46	.35	.56	.42	.39	1.7	3.4	9.1	2.3	.67	.37
8	.46	.46	.37	.53	.39	.39	2.0	3.8	7.4	2.1	.66	.37
9	.46	.42	.38	.51	.39	.39	2.2	6.8	7.2	2.0	.59	.37
10	.50	.42	.39	.49	.40	.38	2.3	11	6.6	1.9	.59	.37
11	.50	.46	.40	.47	.42	.42	2.3	13	6.8	1.8	.59	.37
12	.46	.46	.39	.45	.41	.44	2.0	29	7.2	1.6	.59	.41
13	.46	.46	.38	.44	.47	.46	2.0	40	7.6	1.6	.59	.37
14	.46	.46	.39	.43	.47	.55	1.9	49	9.7	1.5	.58	.37
15	.54	.39	.35	.44	.39	.52	2.1	68	12	1.5	.51	.37
16	.46	.39	.31	.40	.39	.50	2.9	62	13	1.3	.51	.37
17	.42	.39	.28	.39	.39	.53	5.0	46	10	1.3	.51	.37
18	.46	.39	.29	.39	.39	.58	7.9	36	9.1	1.3	.51	.37
19	.50	.39	.30	.39	.40	.60	9.2	32	8.7	1.2	.55	.37
20	.46	.39	.31	.40	.39	.67	11	32	8.5	1.2	.57	.40
21	.46	.30	.29	.41	.41	.80	9.3	30	8.0	1.2	.49	.67
22	.46	.36	.29	.42	.39	1.0	8.9	21	7.5	1.2	.43	.61
23	.50	.38	.29	.44	.33	.98	8.3	18	6.4	1.1	.43	.59
24	.50	.37	.29	.46	.33	1.2	7.1	19	5.7	1.1	.41	.58
25	.46	.39	.29	.52	.33	1.3	6.4	15	5.9	.99	.37	.52
26	.50	.41	.31	.55	.38	1.3	3.9	12	5.7	.87	.40	.51
27	.46	.36	.32	.50	.36	1.1	5.7	9.5	5.2	.87	.43	.51
28	.42	.36	.33	.54	.35	1.0	4.3	8.2	4.8	.87	.42	.43
29	.42	.33	.34	.48	.39	.97	3.8	9.2	4.5	.87	.37	.43
30	.42	.32	.35	.48	---	1.0	3.4	15	4.2	.86	.37	.46
31	.42	---	.37	.50	---	.98	---	20	---	.77	.37	---
TOTAL	15.05	11.83	10.32	14.52	11.68	20.76	121.88	630.2	245.5	51.70	17.24	12.78
MEAN	.49	.39	.33	.47	.40	.67	4.06	20.3	8.18	1.67	.56	.43
MAX	.63	.46	.40	.60	.50	1.3	11	68	16	3.6	1.0	.67
MIN	.42	.30	.28	.39	.33	.36	.90	3.3	4.2	.77	.37	.37
AC-FT	30	23	20	29	23	41	242	1250	487	103	34	25

CAL YR 1983 TOTAL 574.83 MEAN 1.57 MAX 12 MIN .28 AC-FT 1140
WTR YR 1984 TOTAL 1163.46 MEAN 3.18 MAX 68 MIN .28 AC-FT 2310

06289600 WEST PASS CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°59'16", long 107°28'56", in NE¼NE¼SE¼ sec.21, T.58 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, on left bank 80 ft upstream from bridge on county road and 7.6 mi northwest of Parkman.

DRAINAGER AREA.--15.4 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,550 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195 ft^3/s, May 16, 1984, gage height, 4.62 ft; maximum gage height, 4.76 ft, Apr. 28, 1984 (backwater from ice and snow); minimum daily discharge, 3.9 ft^3/s, Feb. 9-11, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft^3/s, May 16, gage height, 4.62 ft; maximum gage height, 4.76 ft, Apr. 28 (backwater from ice and snow); minimum daily discharge, 5.5 ft^3/s, Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	7.2	6.0	6.6	7.5	7.0	10	32	71	31	14	11
2	8.0	7.2	6.1	6.8	7.2	7.0	10	35	61	30	14	11
3	8.5	7.2	6.2	7.0	7.2	7.3	10	37	56	28	14	11
4	8.2	7.2	6.0	7.1	7.0	7.3	11	39	56	27	14	10
5	8.0	7.2	6.0	7.1	7.0	7.2	12	32	59	26	13	10
6	8.0	7.2	6.1	7.0	7.0	7.2	15	29	56	25	13	10
7	7.8	7.6	6.2	7.0	6.9	7.6	15	34	53	24	13	10
8	7.8	7.4	6.3	7.0	6.8	7.4	14	45	49	24	13	10
9	7.7	7.3	6.6	6.8	6.6	7.4	15	75	52	23	13	10
10	8.1	7.2	6.8	6.6	6.8	7.1	13	54	45	22	12	10
11	8.5	7.2	6.8	6.5	6.8	7.0	12	55	47	21	12	10
12	7.7	7.2	6.7	6.4	6.8	7.2	11	69	44	20	12	9.9
13	7.6	7.1	6.5	6.4	6.8	7.5	11	96	45	20	12	9.8
14	7.6	7.0	6.4	6.3	6.8	8.3	10	118	52	19	12	9.7
15	8.4	6.8	6.3	6.2	6.6	8.8	11	156	57	18	12	9.7
16	8.0	6.8	6.2	6.2	6.6	8.5	12	176	59	18	12	9.1
17	7.8	6.8	6.1	6.2	6.6	8.3	14	132	56	17	12	8.3
18	8.0	6.8	6.0	6.1	6.4	9.9	18	102	54	17	12	8.3
19	8.1	6.8	5.8	6.0	6.4	10	21	94	52	16	12	8.3
20	7.6	6.9	5.6	6.0	6.6	13	23	100	50	16	12	8.7
21	7.5	6.9	5.6	6.0	6.8	16	22	95	48	16	12	9.7
22	7.4	6.0	5.5	6.2	6.8	17	22	78	49	16	11	9.8
23	7.9	5.8	5.6	6.4	7.0	14	23	70	45	16	11	10
24	8.2	6.3	5.7	6.8	7.0	16	22	70	42	15	11	11
25	7.6	7.0	5.8	7.4	7.0	15	25	61	40	15	11	11
26	7.4	6.6	6.0	7.6	6.8	12	25	57	39	14	11	10
27	7.4	6.3	5.9	8.0	6.7	12	24	53	38	14	11	10
28	7.2	6.4	5.8	8.0	6.8	12	23	48	36	14	11	9.9
29	7.2	6.3	5.9	8.0	7.2	12	25	49	34	14	11	9.7
30	7.2	6.2	6.1	7.8	---	11	29	61	33	14	11	9.7
31	7.2	---	6.4	7.7	---	11	---	77	---	14	11	---
TOTAL	241.6	205.9	189.0	211.2	198.5	309.0	508	2229	1478	604	375	295.6
MEAN	7.79	6.86	6.10	6.81	6.84	9.97	16.9	71.9	49.3	19.5	12.1	9.85
MAX	8.5	7.6	6.8	8.0	7.5	17	29	176	71	31	14	11
MIN	7.2	5.8	5.5	6.0	6.4	7.0	10	29	33	14	11	8.3
AC-FT	479	408	375	419	394	613	1010	4420	2930	1200	744	586

CAL YR 1983 TOTAL 4008.8 MEAN 11.0 MAX 47 MIN 3.9 AC-FT 7950
WTR YR 1984 TOTAL 6844.8 MEAN 18.7 MAX 176 MIN 5.5 AC-FT 13580

06289820 EAST PASS CREEK NEAR DAYTON, WY

LOCATION.--Lat 44°59'23", long 107°25'20", in SE¼SE¼NE¼ sec.24, T.58 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, on left bank 0.3 mi downstream from bridge on county road, 5.0 mi northwest of Parkman, and 11.2 mi northwest of Dayton.

DRAINAGE AREA.--21.7 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage reocrder. Altitude of gage is 4,410 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several small reservoirs above station, combined capacity, 415 acre-ft, for irrigation. Diversions for irrigation of about 2,900 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197 ft³/s, May 16, 1984, gage height, 3.14 ft; minimum daily, 5.4 ft³/s, Dec. 19, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 197 ft³/s, May 16, gage height, 3.14 ft; minimum daily, 5.4 ft³/s, Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	8.7	6.6	8.0	9.2	8.4	15	26	104	39	12	8.4
2	7.1	8.7	7.0	7.8	9.0	8.6	15	28	85	36	14	8.2
3	7.5	8.7	7.4	9.6	8.7	8.9	14	31	76	35	13	8.2
4	6.9	8.6	7.8	12	8.7	8.9	15	38	74	33	12	8.2
5	6.7	8.7	8.2	13	8.5	8.8	17	39	80	31	12	7.6
6	6.7	8.6	8.5	11	8.4	8.9	19	39	83	28	12	6.8
7	7.0	9.3	8.6	11	8.4	8.7	23	41	82	25	12	6.9
8	7.0	9.0	8.7	10	8.4	8.6	24	54	74	24	12	6.8
9	6.9	8.5	8.5	10	8.2	8.6	25	83	71	23	12	6.9
10	8.7	8.5	8.3	9.5	8.4	8.6	24	84	61	22	11	6.9
11	10	8.6	8.0	9.4	8.5	8.4	22	86	61	22	10	8.2
12	9.4	8.5	8.0	10	8.6	8.5	20	105	62	21	9.3	8.5
13	9.4	8.4	8.2	9.0	8.2	8.8	20	140	64	20	8.6	8.3
14	9.4	8.2	7.9	8.8	8.6	9.6	19	150	77	20	8.5	8.1
15	11	8.1	7.6	9.0	8.9	9.9	19	180	91	20	8.4	8.2
16	9.8	8.1	6.8	8.9	8.9	9.8	21	188	99	19	8.8	7.9
17	9.4	7.9	6.0	8.8	9.0	9.7	26	163	95	19	8.8	7.2
18	10	7.9	5.6	9.0	8.8	12	35	128	87	18	8.5	7.0
19	11	7.8	5.4	9.2	8.8	12	39	113	83	18	8.9	6.9
20	9.9	7.8	5.6	9.4	8.6	13	42	120	81	18	8.9	7.3
21	9.9	8.2	5.8	9.5	8.5	17	38	128	77	18	8.2	8.7
22	9.7	8.1	6.0	9.9	8.5	19	35	103	75	18	8.0	9.8
23	10	8.2	6.4	10	9.2	18	36	90	67	18	7.8	11
24	10	8.3	6.7	11	8.7	18	33	99	61	18	8.0	11
25	9.8	8.5	6.9	12	8.6	18	33	89	57	17	7.7	11
26	9.4	8.2	7.7	11	8.3	18	23	74	54	16	7.8	11
27	9.1	8.2	8.4	10	8.1	18	28	66	51	16	7.3	12
28	9.0	8.2	7.5	11	7.6	17	34	59	46	14	7.3	11
29	9.0	7.9	7.4	10	8.0	17	30	62	43	12	7.4	11
30	8.9	7.0	8.7	11	---	16	27	84	41	12	7.3	11
31	8.7	---	9.1	9.5	---	16	---	111	---	12	6.9	---
TOTAL	274.5	249.4	229.3	308.3	248.3	380.7	771	2801	2162	662	294.4	260.0
MEAN	8.85	8.31	7.40	9.95	8.56	12.3	25.7	90.4	72.1	21.4	9.50	8.67
MAX	11	9.3	9.1	13	9.2	19	42	188	104	39	14	12
MIN	6.7	7.0	5.4	7.8	7.6	8.4	14	26	41	12	6.9	6.8
AC-FT	544	495	455	612	493	755	1530	5560	4290	1310	584	516

CAL YR 1983 TOTAL 5298.2 MEAN 14.5 MAX 77 MIN 5.4 AC-FT 10510
WTR YR 1984 TOTAL 8640.9 MEAN 23.6 MAX 188 MIN 5.4 AC-FT 17140

06289870 TWIN CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°59'37", long 107°21'18", in SE¼NW¼NW¼ sec.22, T.58 N., R.87 W., Sheridan County, Hydrologic Unit 10080016, on right bank 0.5 mi downstream from bridge on county road, 0.7 mi northwest of intersection of county road and U.S. Highway 87, and 2.8 mi north of Parkman.

DRAINAGE AREA.--27.0 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,120 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 517 ft³/s, May 10, 1984, gage height, 5.91 ft; minimum daily, 0.32 ft³/s, Aug. 27, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 517 ft³/s, May 10, gage height, 5.91 ft; minimum daily, 0.43 ft³/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	1.0	.72	1.0	6.5	2.6	19	33	15	4.8	1.5	.95
2	.89	1.0	.72	1.1	5.2	2.7	18	65	14	4.8	5.7	.66
3	.99	1.0	.74	1.2	4.4	3.4	19	89	14	4.7	6.3	.50
4	.90	1.0	.76	1.5	3.6	3.7	20	201	14	4.8	4.6	.60
5	.89	.98	.81	8.0	3.3	4.7	25	211	14	4.5	2.4	.43
6	.96	.96	.88	12	3.1	3.9	32	188	14	4.1	3.3	1.2
7	.83	1.2	.94	10	2.9	3.7	54	182	13	3.9	3.8	.75
8	.81	1.1	1.0	8.2	2.9	3.5	49	246	12	3.8	4.4	.62
9	.76	1.0	1.1	5.9	2.9	3.3	44	311	14	3.7	3.4	.69
10	.88	1.0	1.2	4.1	2.9	3.3	39	270	17	3.7	2.1	.88
11	.96	1.0	1.2	2.8	3.0	3.7	32	118	17	3.6	2.5	1.1
12	.84	.97	1.2	2.1	2.9	3.8	24	125	15	3.3	4.1	1.2
13	.91	.99	1.2	1.6	2.9	4.3	20	122	13	3.1	4.3	1.1
14	.94	.98	1.1	1.4	2.9	6.0	17	120	14	2.8	2.3	1.0
15	1.2	.98	1.1	1.3	2.9	7.8	16	109	12	2.6	2.1	.93
16	1.1	.95	1.0	1.2	2.8	9.5	17	87	12	2.5	1.8	.92
17	1.0	.98	.94	1.1	2.8	12	18	59	10	2.3	1.9	1.0
18	1.1	.93	.86	1.0	2.6	19	20	47	9.5	2.2	1.7	1.6
19	1.2	.88	.80	1.1	2.7	31	22	35	9.0	2.0	1.6	2.5
20	1.0	.83	.74	1.2	2.9	48	24	31	8.2	2.0	1.7	2.0
21	.99	.95	.68	1.2	2.6	85	23	32	7.6	.90	1.7	1.1
22	.98	.98	.66	1.3	2.6	178	22	29	7.4	2.8	1.7	1.2
23	1.0	.94	.65	1.4	2.6	104	20	26	6.9	6.0	1.8	1.4
24	.97	.89	.63	1.6	2.4	70	21	23	6.7	6.6	1.7	2.1
25	.90	.84	.67	6.0	2.4	87	22	22	6.4	3.1	1.3	2.1
26	.91	.76	.72	15	2.3	54	23	21	6.3	2.9	1.2	2.3
27	.97	.76	.77	26	2.5	33	24	19	6.0	1.0	1.1	2.5
28	.96	.78	.84	17	2.6	29	27	18	5.6	.73	.93	2.3
29	.98	.78	.88	13	2.6	26	29	17	5.3	.74	.77	2.2
30	.99	.75	.94	9.8	---	27	31	16	4.9	1.5	.73	2.1
31	1.0	---	.98	7.8	---	24	---	16	---	2.3	2.3	---
TOTAL	29.58	28.16	27.43	167.9	88.7	896.9	771	2888	323.8	97.77	76.73	39.93
MEAN	.95	.94	.88	5.42	3.06	28.9	25.7	93.2	10.8	3.15	2.48	1.33
MAX	1.2	1.2	1.2	26	6.5	178	54	311	17	6.6	6.3	2.5
MIN	.76	.75	.63	1.0	2.3	2.6	16	16	4.9	.73	.73	.43
AC-FT	59	56	54	333	176	1780	1530	5730	642	194	152	79

CAL YR 1983 TOTAL 1125.91 MEAN 3.08 MAX 24 MIN .32 AC-FT 2230
WTR YR 1984 TOTAL 5435.90 MEAN 14.9 MAX 311 MIN .43 AC-FT 10780

06291200 LODGE GRASS CREEK AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'21", long 107°46'27", in NW¼NW¼SE¼ sec.34, T.9 S., R.32 E., Big Horn County, Hydrologic Unit 10080016, on left bank 4.2 mi upstream from North Fork Lodge Grass Creek, 25 mi southwest of Wyola, 32 mi southwest of Lodge Grass, and at mile 58.4.

DRAINAGE AREA.--16.7 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,060 ft, from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, Nov. 21 to Jan. 11, which are poor. No diversions for irrigation upstream of station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft^3/s, May 31, 1984, gage height, 2.38 ft; minimum daily, 2.0 ft^3/s, Dec. 11, 1982, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 240 ft^3/s, May 31, gage height, 2.38 ft; minimum daily, 4.5 ft^3/s, Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	6.4	5.0	5.3	5.3	5.0	5.1	8.1	177	91	20	10
2	8.2	6.4	5.0	5.4	5.3	5.0	5.0	8.2	145	89	19	10
3	8.3	6.4	5.1	5.5	5.3	4.8	5.0	8.3	140	79	18	10
4	8.0	6.4	5.2	5.6	5.3	4.5	5.0	7.9	125	71	18	10
5	8.1	6.4	5.0	5.8	5.3	4.6	5.1	7.8	132	70	17	9.9
6	7.9	6.4	5.1	5.8	5.3	4.7	5.4	7.6	123	64	17	9.9
7	7.6	6.4	5.0	5.8	5.3	4.9	5.3	7.5	123	62	16	9.9
8	7.5	5.8	5.0	5.7	5.3	4.9	5.5	7.7	110	61	15	10
9	7.4	5.5	5.2	5.7	5.2	4.9	5.7	10	94	55	15	11
10	7.8	5.7	5.4	5.6	5.3	4.9	5.5	13	88	52	15	11
11	7.6	6.1	5.5	5.6	5.3	4.8	5.6	15	89	48	14	10
12	7.6	6.4	5.5	5.5	5.2	4.8	5.5	31	87	45	14	9.9
13	7.5	6.1	5.4	5.4	5.3	4.9	5.6	45	110	43	14	9.9
14	7.3	5.8	5.4	5.4	5.3	4.9	5.7	59	153	41	14	9.9
15	7.3	5.5	5.5	5.3	5.1	4.8	6.0	99	183	39	13	9.9
16	7.3	6.1	5.5	5.2	5.2	4.8	7.1	110	203	37	13	9.9
17	7.0	5.8	5.3	5.2	5.1	4.8	8.7	103	174	34	13	9.8
18	7.3	5.8	5.2	5.2	5.0	4.8	10	93	182	33	13	9.5
19	7.3	5.6	5.1	5.2	5.0	5.0	12	91	174	31	12	9.5
20	7.3	5.2	5.0	5.2	5.0	5.0	12	104	173	31	12	9.5
21	7.3	4.7	4.9	5.3	5.0	5.1	11	114	187	28	12	11
22	7.3	4.7	4.8	5.4	5.0	5.3	10	95	159	29	12	10
23	7.3	4.8	4.8	5.5	4.8	5.1	10	86	136	28	11	10
24	6.7	5.1	4.7	5.5	4.9	5.1	9.5	89	134	25	11	9.8
25	6.7	5.4	4.8	5.5	5.0	5.0	8.2	80	133	25	11	10
26	6.7	5.2	[illegible]	5.5	5.0	5.0	6.9	65	126	24	11	10
27	6.4	5.1	5.1	5.3	5.0	4.8	7.3	57	120	23	11	9.9
28	6.4	5.4	5.1	5.4	4.9	4.7	8.2	56	108	23	10	9.9
29	6.4	5.2	5.0	5.4	5.1	4.8	8.9	65	99	21	10	9.7
30	6.4	5.0	5.2	5.3	---	5.0	9.0	94	92	20	10	9.7
31	6.4	---	5.2	5.3	---	5.0	---	179	---	18	10	---
TOTAL	226.0	170.8	159.0	168.8	149.1	151.7	219.8	1816.1	4079	1340	421	299.5
MEAN	7.29	5.69	5.13	5.45	5.14	4.89	7.33	58.6	136	43.2	13.6	9.98
MAX	8.3	6.4	5.5	5.8	5.3	5.3	12	179	203	91	20	11
MIN	6.4	4.7	4.7	5.2	4.8	4.5	5.0	7.5	87	18	10	9.5
AC-FT	448	339	315	335	296	301	436	3600	8090	2660	835	594

CAL YR 1983 TOTAL 6446.6 MEAN 17.7 MAX 161 MIN 2.5 AC-FT 12790
WTR YR 1984 TOTAL 9200.8 MEAN 25.1 MAX 203 MIN 4.5 AC-FT 18250

06298000 TONGUE RIVER NEAR DAYTON, WY

LOCATION.--Lat 44°50'58", long 107°18'14", in NE¼NE¼NE¼ sec.11, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.5 mi upstream from Crystal Draw, 0.6 mi downstream from intake of Highline ditch, and 2.5 mi southwest of Dayton.

DRAINAGE AREA.--204 mi².

PERIOD OF RECORD.--October 1918 to September 1929, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1921.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft, from topographic map.

REMARKS.--Records good. Small diversion above station for Dayton municipal supply. Figures of daily discharge do not include water diverted 0.6 mi above station by Highline ditch for irrigation below station.

AVERAGE DISCHARGE.--55 years (water years 1919-29, 1941-84), 187 ft³/s, 135,500 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, June 3, 1944, gage height, 6.45 ft; minimum daily, 18 ft³/s, Nov. 29, 1919.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 980 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 23	2130	1,700	4.84	June 16	0130	2,010	5.13
June 1	0030	*2,300	*5.38				

Minimum daily discharge, 24 ft³/s, Apr. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	72	59	62	56	53	52	73	1750	617	183	90
2	80	72	62	61	56	52	53	76	1260	560	189	91
3	88	71	62	63	56	53	50	77	1200	534	176	89
4	86	71	63	64	57	49	50	77	1150	512	166	87
5	94	72	65	64	55	48	55	77	1270	475	151	85
6	91	74	64	60	54	51	59	75	1100	448	145	84
7	87	73	64	62	55	53	61	71	1070	423	138	89
8	88	61	64	60	54	53	58	75	944	399	133	87
9	86	52	64	61	52	54	60	94	912	377	131	90
10	86	64	65	54	54	50	57	124	856	356	128	89
11	87	77	65	61	56	52	57	127	975	336	123	87
12	82	75	64	59	54	54	51	190	844	312	122	89
13	80	65	62	58	55	52	53	311	903	296	122	83
14	79	66	63	47	56	49	52	463	1250	282	119	82
15	86	57	57	36	51	47	55	825	1590	268	117	82
16	81	70	58	59	52	50	63	1260	1600	256	114	82
17	75	65	45	52	54	52	78	1140	1460	247	119	78
18	80	69	52	50	55	53	91	1010	1350	234	121	77
19	76	55	52	49	49	52	92	1080	1270	236	114	74
20	73	49	52	54	51	52	95	1340	1240	245	130	74
21	78	59	53	60	56	53	89	1380	1230	220	125	79
22	80	46	54	68	54	55	86	1100	1160	229	110	90
23	80	36	54	74	52	51	93	1180	1000	222	105	96
24	78	46	54	69	51	55	84	1320	900	210	104	99
25	74	62	56	62	52	56	83	967	859	196	101	90
26	86	60	58	59	53	53	56	835	822	183	106	98
27	80	58	58	59	52	55	24	779	764	176	98	102
28	74	63	59	59	51	53	39	741	718	171	94	79
29	72	62	58	58	53	49	56	917	668	167	90	84
30	71	50	60	55	---	53	71	1300	659	176	90	96
31	75	---	61	56	---	53	---	1760	---	164	90	---
TOTAL	2520	1872	1827	1815	1556	1615	1923	20844	32774	9527	3854	2602
MEAN	81.3	62.4	58.9	58.5	53.7	52.1	64.1	672	1092	307	124	86.7
MAX	94	77	65	74	57	56	95	1760	1750	617	189	102
MIN	71	36	45	36	49	47	24	71	659	164	90	74
AC-FT	5000	3710	3620	3600	3090	3200	3810	41340	65010	18900	7640	5160
†	393	0	0	0	0	0	0	149	1580	1700	1540	1330

ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	87.7	62.4	58.9	58.5	53.7	52.1	64.1	675	1119	335	149	109
AC-FT	5390	3710	3620	3600	3090	3200	3810	41490	66590	20590	9190	6500

	UNADJUSTED										ADJUSTED			
CAL YR 1983	TOTAL	63227	MEAN	173	MAX	1760	MIN	36	AC-FT	125400	MEAN	183	AC-FT	132500
WTR YR 1984	TOTAL	82729	MEAN	226	MAX	1760	MIN	24	AC-FT	164100	MEAN	235	AC-FT	170800

† Diversion, in acre-ft, above station by Highline ditch.

06299500 WOLF CREEK AT WOLF, WY

LOCATION.--Lat 44°46'21", long 107°14'01", in NE¼SW¼NW¼ sec.4, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank at Wolf and 0.5 mi downstream from Red Canyon Creek.

DRAINAGE AREA.--37.8 mi².

PERIOD OF RECORD.--January 1945 to current year (no winter records since 1971). Monthly discharge for January to March 1945, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,525 ft, from topographic map. Prior to May 26, 1945, nonrecording gage at same site and datum.

REMARKS.--Records good. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years (water years 1946-71), 29.3 ft³/s, 21,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s, June 15, 1963, gage height, 4.60 ft, from rating curve extended above 500 ft³/s; no flow for part of each day Jan. 13, 15, 29, 30, Feb. 26, 1947, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 5.0 ft, May 18, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	2000	287	2.86	June 15	2330	*338	*3.02
May 31	2000	309	2.93				

Minimum daily discharge during period of operation, 5.0 ft³/s, Apr. 2, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							6.0	12	263	85	27	8.7
2							5.0	12	235	74	29	8.7
3							5.2	13	224	70	27	8.3
4							5.0	14	222	66	23	8.0
5							5.7	14	227	60	20	7.7
6							6.3	13	217	54	19	7.4
7							7.1	13	211	50	17	8.0
8							7.4	15	185	48	17	8.3
9							7.7	24	175	46	16	8.7
10							7.1	32	158	45	15	8.7
11							7.1	33	178	42	14	8.0
12							6.5	54	171	40	15	7.7
13							6.5	83	185	38	14	7.4
14							6.3	118	224	37	13	7.1
15							7.1	204	263	35	13	7.1
16							9.0	252	275	32	13	7.1
17							13	232	252	30	13	6.5
18							16	206	238	29	13	6.3
19							16	197	231	29	12	6.0
20							16	235	224	30	15	6.0
21							15	249	222	28	17	7.1
22							15	217	211	29	13	9.4
23							15	211	178	27	12	9.0
24							14	224	156	27	11	9.0
25							13	187	151	25	11	7.7
26							10	162	137	23	10	9.0
27							13	149	126	21	9.7	8.3
28							13	133	113	21	9.0	7.1
29							13	158	104	20	8.7	7.4
30							12	208	97	21	8.7	9.7
31							---	265	---	20	8.7	---
TOTAL							299.0	3939	5853	1202	463.8	235.4
MEAN							9.97	127	195	38.8	15.0	7.85
MAX							16	265	275	85	29	9.7
MIN							5.0	12	97	20	8.7	6.0
AC-FT							593	7810	11610	2380	920	467

06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°32'18", long 107°13'33", in SE¼SE¼NW¼ sec.28, T.53 N., R.86 W., Johnson County, Hydrologic Unit 10090101, Bighorn National Forest, on right bank 0.7 mi upstream from Park Reservoir and 16 mi southwest of Big Horn.

DRAINAGE AREA.--20.1 mi².

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1973). Prior to October 1960, published as East Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,320 ft, from topographic map. Prior to June 28, 1960, water-stage recorder at site 1.1 mi downstream at different datum. June 28, 1960, to July 14, 1970, water-stage recorder at site 0.9 mi downstream at different datums and July 15 to Oct. 7, 1970, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for period of no gage-height record, July 1-18, which are poor. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--20 years (water years 1954-73), 32.6 ft³/s, 23,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, June 15, 1963, gage height, 4.59 ft, site and datum then in use, from rating curve extended above 250 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft³/s, Dec. 11-14, 1963, Mar. 24, 25, Nov. 14, 15, 1964, Mar. 18, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; minimum daily during period of operation, 5.0 ft³/s, Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										220	26	7.6
2										180	27	7.6
3										180	25	7.6
4										175	29	7.1
5										175	24	6.9
6										165	23	6.9
7										160	21	7.6
8										150	19	8.7
9										130	18	7.8
10										110	16	7.9
11										84	14	8.0
12										72	14	7.6
13										66	14	7.1
14										62	13	6.4
15										56	13	6.1
16										47	12	6.0
17										43	14	6.0
18										39	16	5.8
19										42	14	5.7
20										43	15	5.3
21										39	16	5.2
22										46	13	5.0
23										43	12	6.2
24										40	12	7.4
25										38	11	9.5
26										33	11	11
27										30	10	9.5
28										28	9.2	9.2
29										26	8.2	8.7
30										26	8.0	7.8
31										26	7.8	---
TOTAL										2574	485.2	219.2
MEAN										83.0	15.7	7.31
MAX										220	29	11
MIN										26	7.8	5.0
AC-FT										5110	962	435

06301500 WEST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°36'47", long 107°17'49", in NE¼SE¼NE¼ Sec.35, T.54 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.3 mi downstream from Twin Lakes Branch and 16 mi west of Big Horn.

DRAINAGE AREA.--24.4 mi².

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1971). Prior to October 1960, published as West Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,420 ft, from topographic map.

REMARKS.--Records good except those for July, which are poor. Some regulation by Twin Lakes, capacity, 1,200 acre-ft, and Dome Lake, capacity, 1,800 acre-ft. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--18 years (water years 1954-71), 34.4 ft³/s, 24,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s, June 15, 1963, gage height, 5.37 ft, from rating curve extended above 410 ft³/s on basis of velocity-area study; minimum daily, 0.80 ft³/s, Dec. 14, 26, 1963, Jan. 15, 16, Feb. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; minimum daily during period of operation, 11 ft³/s, Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										250	37	19
2										190	39	19
3										190	38	19
4										180	42	19
5										180	42	19
6										170	43	17
7										165	38	12
8										160	36	11
9										140	34	11
10										120	39	11
11										88	73	12
12										74	73	12
13										68	56	12
14										66	38	12
15										62	37	12
16										58	36	12
17										52	36	12
18										50	35	12
19										53	34	12
20										53	33	12
21										49	33	15
22										51	31	34
23										51	31	37
24										51	31	37
25										51	33	35
26										48	33	34
27										46	33	33
28										43	33	31
29										42	31	31
30										39	29	29
31										31	24	---
TOTAL										2871	1181	593
MEAN										92.6	38.1	19.8
MAX										250	73	37
MIN										31	24	11
AC-FT										5690	2340	1180

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY

LOCATION.--Lat 44°42'08", long 107°10'51", in NW¼NE¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.4 mi upstream from Cave Creek and 14 mi southwest of Sheridan.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--September 1929 to current year (no winter records since 1971). Prior to October 1960, published as Goose Creek near Sheridan. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1006: Drainage area. WSP 1509: 1930(M), 1931.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft, from topographic map.

REMARKS.--Records fair except those above 200 ft³/s, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 20 acres and to Sheridan Filtration plant, and return flow from irrigated areas. PK ditch diverts water 0.6 mi above station for irrigation of lands downstream from station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years (water years 1930-71), 79.6 ft³/s, 57,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft³/s, June 15, 1963, gage height, 5.83 ft, from rating curve extended above 1,600 ft³/s; minimum daily, 1.6 ft³/s, Nov. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s, June 16, gage height, 4.32 ft; minimum daily during period of operation, 12 ft³/s, Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							13	25	935	417	36	32
2							14	26	908	235	38	30
3							15	26	866	239	31	29
4							12	26	807	234	38	26
5							14	26	774	235	42	28
6							14	25	672	217	40	32
7							15	25	638	218	35	33
8							15	28	585	211	38	31
9							15	43	525	183	37	28
10							15	63	477	147	33	20
11							14	65	509	105	37	19
12							13	98	459	82	35	18
13							13	164	458	75	31	18
14							13	218	495	69	29	21
15							14	430	680	62	31	18
16							18	544	1040	48	26	16
17							24	487	1050	44	44	16
18							28	425	916	36	70	17
19							28	441	850	42	67	17
20							26	587	862	44	63	16
21							23	610	816	39	38	16
22							23	643	810	40	27	45
23							24	585	721	44	26	37
24							24	627	565	40	25	29
25							23	559	424	40	28	24
26							13	459	508	40	32	35
27							18	420	543	30	35	37
28							33	404	524	26	33	37
29							29	592	509	25	33	37
30							26	724	509	24	36	36
31							---	885	---	35	30	---
TOTAL							569	10280	20435	3326	1144	798
MEAN							19.0	332	681	107	36.9	26.6
MAX							33	885	1050	417	70	45
MIN							12	25	424	24	25	16
AC-FT							1130	20390	40530	6600	2270	1580

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06303500 LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN, WY

LOCATION.--Lat 44°35'46", long 107°02'22", in SE¼SW¼NE¼ sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, on left bank 100 ft upstream from headgate of Lower Peralta ditch and 6.5 mi southwest of Big Horn.

DRAINAGE AREA.--51.6 mi^2.

PERIOD OF RECORD.--April 1941 to current year (no winter records since 1971).

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft, from topographic map.

REMARKS.--Records good. Three small reservoirs above station, combined capacity, 860 acre-ft, two of which store some imported water. Water imported into drainage basin above station from East Goose Creek basin is diverted below station for irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years (water years 1942-71), 63.4 ft^3/s, 45,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft^3/s, June 15, 1963, gage height, 6.78 ft, from rating curve extended above 900 ft^3/s; minimum recorded, 2.2 ft^3/s, Dec. 4, 1949, gage height, 0.71 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 655 ft^3/s, June 15, gage height, 4.99 ft; minimum daily during period of operation, 9.0 ft^3/s, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							9.0	31	504	224	144	78
2							10	30	445	208	149	79
3							10	30	427	201	141	79
4							9.5	30	412	190	140	79
5							10	29	421	176	133	77
6							11	28	405	165	127	73
7							13	28	384	155	107	73
8							13	29	339	150	107	76
9							15	42	328	141	101	78
10							14	59	313	138	98	77
11							14	65	365	127	91	71
12							12	100	351	99	90	68
13							12	171	378	96	91	70
14							12	234	472	93	90	70
15							14	398	555	90	88	70
16							18	548	547	90	84	69
17							27	527	509	102	85	68
18							37	463	462	92	84	68
19							44	447	465	88	85	64
20							49	489	465	104	85	50
21							41	520	442	130	69	53
22							39	462	431	129	64	52
23							40	440	372	124	63	57
24							37	453	341	133	60	55
25							34	396	346	133	55	53
26							20	342	334	132	55	53
27							24	306	310	131	52	54
28							38	273	285	137	56	52
29							37	295	267	141	66	52
30							33	387	262	142	69	54
31							---	488	---	141	72	---
TOTAL							696.5	8140	11937	4202	2801	1972
MEAN							23.2	263	398	136	90.4	65.7
MAX							49	548	555	224	149	79
MIN							9.0	28	262	88	52	50
AC-FT							1380	16150	23680	8330	5560	3910

06304500 LITTLE GOOSE CREEK AT SHERIDAN, WY

LOCATION.--Lat 44°48'10", long 106°57'10", in NE¼NW¼SW¼ sec.26, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, at bridge on Sheridan Avenue in Sheridan and 0.6 mi upstream from mouth.

PERIOD OF RECORD.--March 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 27...	1410	41	710	8.4	11.0	11.7	123	90
JAN 19...	1530	32	660	8.2	1.0	11.2	89	140
MAY 10...	1415	332	600	8.3	10.0	9.8	101	580
JUL 16...	1135	18	820	8.3	23.0	12.1	162	340

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY 10...	1415	332	10.0	<.01	<.01	<.01	<.01	<.010	.140
JUN 13...	1020	402	10.5	<.01	<.01	<.01	<.01	<.010	.030
JUL 16...	1135	18	23.0	<.01	<.01	<.01	<.01	<.010	<.010
AUG 17...	1540	33	23.0	<.01	<.01	<.01	<.01	.020	.130

06305500 GOOSE CREEK BELOW SHERIDAN, WY

LOCATION.--Lat 44°49'25", long 106°57'40", in SE¼SW¼ sec.15, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 700 ft north of Sheridan city limits and 0.2 mi downstream from Soldier Creek.

DRAINAGE AREA.--392 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to September 1984 (discontinued). Monthly discharge only for October to December 1941, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 3,701.36 ft, National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1951, nonrecording gage at site 600 ft upstream at datum 2.18 ft lower.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--43 years, 183 ft^3/s, 132,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft^3/s, June 16, 1963, gage height, 7.82 ft; maximum gage height, 9.11 ft, Feb. 28, 1972 (backwater from ice); minimum daily discharge, 4.0 ft^3/s, Aug. 11, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,880 ft^3/s, June 17, gage height, 5.41 ft; minimum daily, 46 ft^3/s, Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	93	74	83	82	85	132	218	1510	718	79	57
2	94	92	72	86	84	86	126	257	1440	571	115	59
3	115	92	68	88	86	96	123	322	1320	406	100	57
4	108	88	72	91	92	92	117	450	1300	395	93	62
5	117	88	74	94	84	81	109	518	1220	366	96	61
6	107	90	80	92	84	90	110	540	1150	349	115	86
7	99	104	88	89	88	82	117	498	1050	321	100	79
8	95	110	88	85	82	82	120	587	922	301	92	77
9	78	101	82	78	82	87	123	655	972	283	82	88
10	87	95	80	74	79	82	121	790	886	244	75	96
11	91	100	80	76	79	89	119	566	989	201	72	88
12	86	103	77	76	81	89	108	613	866	161	99	92
13	89	98	77	74	86	102	104	752	832	134	102	87
14	98	94	80	68	83	127	97	795	984	122	87	82
15	127	92	71	62	80	124	97	1060	1210	118	70	82
16	116	90	72	70	75	121	106	1510	1760	104	69	86
17	104	92	68	68	78	107	124	1480	1810	91	73	85
18	108	90	61	70	76	153	151	1240	1660	85	81	77
19	115	86	57	72	76	155	162	1110	1530	74	84	74
20	106	79	56	71	79	158	202	1230	1550	83	102	60
21	100	78	56	70	81	161	175	1430	1450	81	104	69
22	99	76	55	76	84	182	162	1350	1420	89	82	98
23	102	75	54	79	82	149	162	1190	1270	104	79	149
24	101	70	56	81	78	150	155	1330	1100	95	76	164
25	105	72	60	85	78	172	188	1180	860	88	68	173
26	103	75	64	88	81	148	108	991	788	71	61	198
27	98	70	70	90	74	143	65	890	846	57	52	220
28	92	72	68	90	69	149	162	772	807	54	46	209
29	91	74	68	81	80	131	222	891	768	54	48	207
30	90	72	74	76	---	131	202	1110	745	68	49	211
31	90	---	77	78	---	133	---	1340	---	57	53	---
TOTAL	3103	2611	2179	2461	2343	3737	4069	27665	35015	5945	2504	3233
MEAN	100	87.0	70.3	79.4	80.8	121	136	892	1167	192	80.8	108
MAX	127	110	88	94	92	182	222	1510	1810	718	115	220
MIN	78	70	54	62	69	81	65	218	745	54	46	57
AC-FT	6150	5180	4320	4880	4650	7410	8070	54870	69450	11790	4970	6410

CAL YR 1983 TOTAL 58697 MEAN 161 MAX 1440 MIN 14 AC-FT 116400
WTR YR 1984 TOTAL 94865 MEAN 259 MAX 1810 MIN 46 AC-FT 188200

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 26...	1700	103	650	8.5	10.5	10.2	104	1000	320	62
DEC 08...	1450	88	690	8.3	1.0	12.1	97	270	350	64
JAN 20...	1500	71	650	8.1	1.0	12.0	96	1500	340	68
FEB 23...	1530	73	700	8.2	2.0	12.2	101	1200	370	70
MAR 29...	1030	141	850	8.3	6.0	13.2	121	2300	390	70
MAY 02...	1130	244	710	8.4	5.5	12.6	116	220	360	67
JUN 04...	1600	1270	164	8.5	11.0	9.8	104	600	74	17
JUL 16...	1530	103	540	8.6	25.0	11.8	164	600	280	55
AUG 17...	1300	71	710	8.4	22.0	10.3	135	1100	360	66
SEP 19...	0915	75	770	8.3	14.5	10.8	119	500	380	71

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 26...	41	27	.7	1.7	250	120	4.6	.40	6.3
DEC 08...	45	30	.7	2.5	260	130	5.4	.20	13
JAN 20...	42	27	.7	2.7	250	130	8.3	.20	13
FEB 23...	47	29	.7	2.7	260	180	5.2	.30	9.5
MAR 29...	52	36	.8	3.3	260	190	6.6	.50	7.4
MAY 02...	48	31	.7	3.4	230	190	6.0	.30	8.5
JUN 04...	7.7	5.0	.3	.00	62	18	.60	.00	8.1
JUL 16...	34	23	.6	2.4	180	120	4.4	.00	6.7
AUG 17...	47	32	.8	3.6	270	150	6.4	.40	8.3
SEP 19...	49	31	.7	2.3	270	160	6.0	.30	9.1

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 26...	410	.56	115	.20	.80	.020	.78	.80	.460
DEC 08...	450	.61	106	.90	.90	.070	1.1	1.2	.230
JAN 20...	440	.60	85	.50	.50	.590	.31	.90	.220
FEB 23...	500	.68	98	.30	.40	.380	.32	.70	.170
MAR 29...	520	.71	199	.30	.30	.050	.55	.60	.280
MAY 02...	490	.67	324	<.10	.30	.070	.73	.80	.160
JUN 04...	94	.13	321	.20	.30	.060	.64	.70	.040
JUL 16...	350	.48	98	.20	.00	.040	1.1	1.1	.230
AUG 17...	480	.65	91	.20	.00	<.010	--	.40	.400
SEP 19...	490	.67	99	--	.00	--	--	--	.020

06305700 GOOSE CREEK NEAR ACME, WY

LOCATION.--Lat 44°53'11", long 106°59'18", in SE¼SE¼NE¼ sec.28, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.2 mi north of county road, 1.6 mi south of Acme, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--Undetermined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1984.

GAGE.--Water-stage recorder. Altitude of gage is 3,620 ft, from topographic map.

REMARKS.--Records good. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft³/s, June 17, gage height, 6.13 ft; minimum daily during period of operation, 45 ft³/s, Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								210	1480	777	57	52
2								255	1470	657	120	58
3								285	1350	491	102	58
4								350	1320	443	94	60
5								475	1230	403	98	60
6								520	1190	373	116	76
7								540	1070	346	105	77
8								516	974	324	94	73
9								644	1000	305	86	85
10								824	970	283	79	94
11								586	1010	234	68	91
12								628	932	194	92	92
13								777	881	159	100	88
14								836	972	137	90	86
15								1020	1130	123	71	90
16								1460	1770	110	66	92
17								1520	2090	89	68	90
18								1260	1950	83	76	83
19								1130	1690	71	79	78
20								1190	1690	69	93	67
21								1400	1600	66	99	69
22								1360	1540	68	79	94
23								1200	1420	85	76	152
24								1320	1250	81	74	177
25								1210	1030	77	67	188
26								1040	899	66	61	212
27								948	914	54	53	243
28								830	896	50	47	232
29								905	849	49	46	226
30								1080	798	60	45	228
31								1290	---	55	49	---
TOTAL								27609	37365	6382	2450	3371
MEAN								891	1246	206	79.0	112
MAX								1520	2090	777	120	243
MIN								210	798	49	45	52
AC-FT								54760	74110	12660	4860	6690

06305700 GOOSE CREEK NEAR ACME, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT 26...	1415	111	680	8.6	9.0	16.2	159
DEC 08...	1000	87	650	8.0	1.0	10.8	88
JAN 20...	1100	69	710	8.1	1.0	10.8	85
FEB 23...	1330	94	770	8.3	1.0	12.6	101
MAR 29...	1430	147	830	8.3	7.0	14.6	137
MAY 02...	1520	254	740	8.6	7.5	12.0	116
JUN 04...	1930	1300	180	8.5	12.0	9.7	105
JUL 16...	1900	102	590	8.0	25.0	9.2	128
AUG 17...	0930	62	720	8.1	20.5	8.0	100
SEP 19...	1315	77	820	8.2	18.0	10.1	120

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 26...	160	<.100	.010	1.7	1.7	.150
DEC 08...	370	.700	.080	.82	.90	.190
JAN 20...	1100	.600	.260	.44	.70	.210
FEB 23...	220	.300	.280	.42	.70	.160
MAR 29...	310	.200	.030	.57	.60	.140
MAY 02...	1500	.400	.080	.82	.90	.200
JUN 04...	1000	.100	.030	.57	.60	.090
JUL 16...	280	<.100	.030	.47	.50	.150
AUG 17...	240	<.100	<.010	--	.60	.300
SEP 19...	170	<.100	<.010	--	.50	.240

06306100 SQUIRREL CREEK NEAR DECKER, MT

LOCATION.--Lat 45°03'05", long 106°55'36", in NW¼NW¼ sec.14, T.9 S., R.39 E., Bighorn County, Hydrologic Unit 10090101, on left bank 0.4 mi upstream from Powers Cormack ditch, 0.5 mi northwest of C X Ranch, 4 mi northwest of Decker, and at mile 7.0.

DRAINAGE AREA.--33.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft, from topographic map.

REMARKS.--Records poor. Two small diversions above station.

AVERAGE DISCHARGE.--9 years, 3.30 ft^3/s, 2,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 584 ft^3/s, May 18, 1978, gage height, 7.27 ft; no flow may occur many days each year due to instream storage from beaver dams.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 5	1030	40	3.00	June 14	2130	21	2.42
May 9	1500	43	3.09	June 20	2130	*50	*3.30

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.05	.00	.00	.04	.19	.44	11	2.2	1.5	.00	.00
2	.05	.05	.00	.00	.05	.15	.36	13	1.7	2.1	.00	.00
3	.05	.05	.00	.00	.05	.13	.44	17	1.6	2.0	.00	.00
4	.05	.05	.00	.00	.05	.09	.27	26	2.7	1.5	.01	.00
5	.04	.05	.00	.02	.06	.07	.16	31	4.0	1.5	.00	.00
6	.04	.03	.00	.05	.07	.06	1.4	25	3.1	1.4	.00	.00
7	.04	.04	.00	.05	.08	.07	5.5	19	2.3	1.3	.00	.00
8	.04	.04	.01	.05	.09	.07	12	26	2.2	1.3	.00	.00
9	.03	.03	.01	.05	.09	.06	12	32	2.2	1.2	.00	.00
10	.03	.02	.01	.05	.09	.05	9.4	33	4.4	1.1	.00	.00
11	.03	.02	.01	.05	.09	.06	8.3	26	5.9	1.0	.00	.00
12	.03	.02	.03	.05	.09	.13	7.9	24	5.0	.87	.00	.00
13	.02	.02	.04	.06	.09	.10	5.6	22	3.8	.69	.00	.00
14	.03	.03	.04	.06	.09	.09	5.4	20	9.4	.55	.00	.00
15	.05	.02	.03	.06	.09	.09	6.1	17	12	.32	.00	.00
16	.04	.02	.00	.06	.09	.13	7.4	15	5.9	.33	.00	.00
17	.04	.02	.00	.05	.09	.09	8.5	13	6.3	.30	.00	.00
18	.05	.02	.00	.05	.09	.06	10	11	11	.29	.00	.00
19	.07	.01	.00	.05	.12	.04	9.6	9.4	17	.25	.00	.00
20	.05	.00	.00	.05	.16	.08	11	9.0	12	.17	.00	.00
21	.05	.00	.00	.05	.18	.07	8.9	8.4	10	.16	.00	.00
22	.04	.00	.00	.05	.18	.13	6.3	7.7	8.1	.13	.00	.00
23	.05	.00	.00	.05	.16	.60	5.8	6.8	7.4	.05	.00	.00
24	.04	.00	.00	.05	.16	.22	6.1	5.9	5.9	.10	.00	.00
25	.04	.00	.00	.05	.16	2.6	5.8	5.8	5.3	.09	.00	.00
26	.05	.00	.00	.05	.16	4.2	6.9	5.8	4.7	.03	.00	.00
27	.05	.00	.00	.05	.18	1.6	4.4	4.8	3.9	.01	.00	.01
28	.05	.00	.00	.25	.22	.92	2.6	4.0	3.1	.00	.00	.02
29	.05	.00	.00	.06	.24	.44	4.2	3.2	2.6	.00	.00	.03
30	.05	.00	.00	.04	---	.22	6.8	2.6	1.8	.00	.00	.03
31	.05	---	.00	.03	---	.44	---	2.3	---	.00	.00	---
TOTAL	1.35	.59	.18	1.54	3.31	13.25	179.57	456.7	167.5	20.24	.01	.09
MEAN	.044	.020	.006	.050	.11	.43	5.99	14.7	5.58	.65	.000	.003
MAX	.07	.05	.04	.25	.24	4.2	12	33	17	2.1	.01	.03
MIN	.02	.00	.00	.00	.04	.04	.16	2.3	1.6	.00	.00	.00
AC-FT	2.7	1.2	.4	3.1	6.6	26	356	906	332	40	.02	.2

CAL YR 1983 TOTAL 370.89 MEAN 1.02 MAX 13 MIN .00 AC-FT 736
WTR YR 1984 TOTAL 844.33 MEAN 2.31 MAX 33 MIN .00 AC-FT 1670

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 25...	1600	.05	1620	7.9	9.5	7.0	70	850	370	110	140	78
DEC 14...	1500	.05	1610	7.7	5.5	7.6	69	850	340	110	140	78
JAN 26...	1300	.05	1610	7.8	6.0	6.4	59	850	330	110	140	77
MAR 21...	1400	.08	1660	7.9	9.0	8.2	83	850	370	110	140	78
APR 17...	1230	6.1	985	8.5	12.0	9.8	105	520	190	80	77	28
MAY 22...	1240	7.9	1010	8.4	12.0	10.0	106	540	190	84	80	29
JUL 10...	1155	1.1	1290	8.5	18.0	8.4	101	690	290	94	110	54

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 25...	1	11	486	520	4.5	.50	17	1200	1.6	.16	<.10
DEC 14...	1	9.5	513	490	4.2	.50	--	--	--	--	<.10
JAN 26...	1	9.8	518	480	4.3	.50	16	1100	1.6	.16	<.10
MAR 21...	1	11	483	550	4.6	.50	14	1200	1.6	.26	<.10
APR 17...	.5	5.6	332	260	3.0	.30	3.2	660	.89	11	.40
MAY 22...	.6	5.7	354	270	3.0	.40	5.3	690	.94	15	<.10
JUL 10...	.9	7.8	396	350	3.6	.40	9.2	870	1.2	2.6	.10

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 25...	.020	.78	.80	.010	--	--	150	22	84	.01	19
DEC 14...	.070	.13	.20	.010	3.6	.30	130	31	27	.00	62
JAN 26...	.080	.12	.20	<.010	--	--	140	42	93	.01	52
MAR 21...	.010	.39	.40	.020	5.7	.30	140	25	125	.03	24
APR 17...	.080	.52	.60	.040	6.8	.30	70	18	115	1.9	95
MAY 22...	.030	.47	.50	.040	--	--	70	21	61	1.3	92
JUL 10...	.070	.73	.80	.030	--	--	120	25	68	.20	57

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06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR												
17...	1230	<1	<1	10	.8	<1	<1	<10	<10	6	3	1100

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
APR											
17...	<1	60	34	<.1	<.1	19	4	<1	1	20	20

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21", in NE¼SW¼SW¼ sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft upstream from county bridge, 0.9 mi upstream from mouth, 2.8 mi downstream from Coutant Creek, and 7.6 mi northeast of Acme.

DRAINAGE AREA.--358 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
13...	0930	73	15.0	.03	<.01	<.01	<.01	<.010	.130
JUL									
24...	0825	15	16.0	<.01	<.01	<.01	<.01	.020	.020
AUG									
31...	0930	51	16.0	<.01	<.01	<.01	<.01	<.010	.040

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION.--Lat 45°00'32", long 106°50'08", in NW¼NW¼NE¼ sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1.0 mi north of Wyoming-Montana State line, 1.4 mi southeast of Decker, 1.6 mi upstream from Badger Creek, and at mile 200.9.

DRAINAGE AREA.--1,477 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,429.14 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft. Diversions for irrigation of about 64,300 acres above station.

AVERAGE DISCHARGE.--24 years, 501 ft^3/s, 363,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft^3/s, May 19, 1978, gage height, 14.25 ft; minimum, 3.0 ft^3/s, Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 10	1600	2,180	5.98	June 1	2330	4,340	*7.91
May 17	1630	3,990	7.55	June 16	2300	*4,460	7.90

Minimum daily discharge, 70 ft^3/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	218	140	180	320	230	318	446	3720	1640	285	198
2	262	218	160	190	330	230	314	612	3810	1450	320	203
3	261	217	180	220	330	220	311	791	3230	1190	348	202
4	281	215	200	250	330	210	297	1150	3050	1080	327	204
5	272	213	180	270	320	200	278	1480	2960	1000	302	200
6	278	213	160	260	310	190	277	1490	2990	926	286	197
7	268	220	190	240	310	190	280	1620	2710	858	284	204
8	253	233	220	230	310	200	295	1630	2450	797	261	202
9	251	229	240	220	310	210	304	1600	2330	754	240	208
10	237	210	250	180	290	240	310	1890	2350	709	217	219
11	249	209	250	200	280	273	298	1640	2370	628	201	225
12	257	224	240	200	280	247	285	1490	2370	558	197	220
13	241	228	240	180	270	259	265	1700	2130	479	209	223
14	238	218	210	120	260	301	253	1910	2420	441	221	218
15	263	213	190	130	250	319	238	2200	2890	422	211	217
16	284	207	150	130	250	310	238	3180	3760	408	196	219
17	274	212	130	130	250	296	253	3730	4270	384	198	218
18	259	211	110	110	240	313	281	3030	4070	375	208	211
19	267	209	120	110	230	413	322	2680	3680	371	219	195
20	261	200	110	100	250	388	336	2770	3520	363	220	183
21	252	189	90	110	240	392	368	3330	3440	378	243	178
22	246	204	80	120	250	429	347	3300	3280	372	258	194
23	246	180	80	140	230	454	327	2810	3010	378	237	251
24	244	150	70	150	240	388	332	3050	2630	389	236	315
25	241	180	80	160	250	404	338	2960	2310	390	237	336
26	236	200	100	180	250	425	419	2410	2070	371	229	347
27	244	180	140	220	240	378	252	2150	2000	347	219	405
28	234	200	130	250	240	377	175	1880	1910	324	203	425
29	223	190	130	300	240	366	284	1880	1780	303	194	385
30	219	170	150	350	---	324	369	2320	1660	302	193	392
31	219	---	180	340	---	322	---	3010	---	311	192	---
TOTAL	7825	6160	4900	5970	7900	9498	8964	66139	85170	18698	7391	7394
MEAN	252	205	158	193	272	306	299	2134	2839	603	238	246
MAX	284	233	250	350	330	454	419	3730	4270	1640	348	425
MIN	219	150	70	100	230	190	175	446	1660	302	192	178
AC-FT	15520	12220	9720	11840	15670	18840	17780	131200	168900	37090	14660	14670

CAL YR 1983 TOTAL 155166 MEAN 425 MAX 3420 MIN 70 AC-FT 307800
WTR YR 1984 TOTAL 236009 MEAN 645 MAX 4270 MIN 70 AC-FT 468100

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976, November 1980 to current year.

REMARKS.--Once-daily temperatures are available in the Helena district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,490 microsiemens, Aug. 12, 1966, Jan. 11, 1972; ; minimum daily, 192 microsiemens, June 7, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 890 microsiemens, Apr. 7; minimum daily, 209 microsiemens, June 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	- HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT										
25...	1400	240	710	8.6	8.5	12.4	119	K15	340	68
DEC										
14...	1220	208	662	8.0	.0	10.7	83	54	310	60
JAN										
25...	1500	163	692	7.9	.0	9.8	77	150	350	74
MAR										
22...	0930	418	830	8.6	6.5	9.8	91	K160	390	74
APR										
16...	1240	237	793	8.7	13.0	12.2	131	800	370	71
MAY										
21...	1315	3530	241	8.5	10.0	9.0	91	570	120	30
JUL										
09...	1245	773	368	8.2	20.0	8.6	108	K98	170	38
AUG										
27...	1145	220	652	8.2	20.0	8.6	108	--	340	67

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT									
25...	42	30	.7	2.3	240	150	3.6	.30	4.6
DEC									
14...	40	27	.7	1.7	240	130	3.0	.20	8.2
JAN									
25...	41	29	.7	2.7	250	150	3.8	.10	11
MAR									
22...	50	40	.9	3.8	230	230	4.2	.30	5.8
APR									
16...	48	40	.9	2.9	240	200	5.8	.30	3.8
MAY									
21...	12	8.2	.3	1.3	78	36	16	.00	8.2
JUL									
09...	19	14	.5	1.4	130	63	2.0	.00	7.5
AUG									
27...	41	29	.7	2.6	240	160	5.2	.20	16

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT									
25...	440	.60	288	--	.00	--	--	--	.000
DEC									
14...	410	.56	233	--	.30	--	--	--	.040
JAN									
25...	460	.63	203	.40	.40	.260	.14	.40	.060
MAR									
22...	550	.74	616	.20	.20	<.010	--	1.2	.240
APR									
16...	520	.70	330	--	.00	--	--	--	.150
MAY									
21...	160	.22	1520	.20	.30	.090	1.9	2.0	.150
JUL									
09...	220	.30	465	--	.00	--	--	--	.040
AUG									
27...	460	.63	276	<.10	.00	.050	.35	.40	.090

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)
JAN										
25...	1500	1	<100	<1	<1	10	<1	<.1	<1	<1
MAR										
22...	0930	<1	<100	<1	<1	7	<1	<.1	<1	<1
MAY										
21...	1315	<1	300	<1	<1	280	<1	.4	<1	<1
AUG										
27...	1145	1	60	<1	2	20	<1	.1	<1	<1

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
MAY									
21...	1315	3530	10.0	.01	<.01	<.01	<.01	.010	.030
JUL									
09...	1245	773	20.0	.03	<.01	<.01	<.01	<.010	.010
AUG									
27...	1145	220	20.0	.02	<.01	<.01	<.01	.010	.070

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	722	832	687	678	754	855	661	209	249	680	720
2	---	718	852	671	716	722	860	696	217	267	696	711
3	---	717	829	694	734	715	869	705	220	285	670	707
4	---	726	806	650	747	721	880	765	239	329	700	720
5	---	738	731	661	755	740	882	750	233	334	695	725
6	---	739	731	661	766	771	885	725	227	348	715	726
7	---	728	714	651	755	799	890	705	250	354	721	729
8	---	711	691	736	752	786	860	766	244	358	750	759
9	---	730	692	651	771	783	869	758	256	374	755	763
10	---	730	688	671	780	758	834	725	283	378	772	745
11	---	742	680	689	781	798	807	675	345	404	801	740
12	---	740	672	714	784	790	795	692	309	427	825	748
13	---	735	670	710	801	803	810	657	300	457	819	743
14	---	724	673	718	784	792	824	561	310	474	825	743
15	---	721	674	713	794	741	824	503	268	489	800	740
16	---	724	677	744	798	787	826	426	244	529	810	741
17	---	732	705	773	796	803	809	347	242	513	805	752
18	---	731	723	794	801	821	782	325	229	507	790	746
19	---	717	771	756	786	794	740	334	228	535	757	---
20	---	718	793	812	813	802	690	280	234	539	746	---
21	---	731	800	808	789	810	633	293	219	577	752	758
22	---	733	753	780	785	828	636	274	221	602	714	771
23	---	745	780	760	811	797	630	293	218	605	712	726
24	719	847	743	730	811	809	644	280	228	576	699	700
25	714	859	742	722	782	809	644	271	246	601	698	681
26	712	791	743	702	780	809	620	280	248	596	701	658
27	702	802	744	676	770	814	---	296	265	612	703	652
28	709	778	716	617	764	825	623	300	250	626	716	635
29	697	736	692	611	740	822	727	304	250	636	717	637
30	700	762	690	590	---	853	667	278	244	609	714	657
31	710	---	689	622	---	853	---	255	---	633	720	---
MEAN	---	744	732	702	773	791	---	490	249	478	741	---
MAX	719	859	852	812	813	853	890	766	345	636	825	771
MIN	697	711	670	590	678	715	620	255	209	249	670	635

06309200 MIDDLE FORK POWDER RIVER NEAR BARNUM, WY

LOCATION.--Lat 43°34'40", long 107°08'16", in SE¼SW¼NE¼ sec.26, T.42 N., R.86 W., Washakie County, Hydrologic Unit 10090201, on left bank 1,100 ft downstream from Rock Creek and 13 mi southwest of Barnum.

DRAINAGE AREA.--45.2 mi².

PERIOD OF RECORD.--September 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,220 ft, from topographic map. Prior to Oct. 1, 1970, at site 900 ft upstream at different datum. Since Sept. 15, 1983, supplementary water-stage recorder at site 150 ft downstream at datum 6.78 ft lower.

REMARKS.--Records good except those for November and December, which are poor. No diversion above station.

AVERAGE DISCHARGE.--23 years, 32.1 ft³/s, 23,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s, June 15, 1963, gage height, 12.6 ft, from floodmark, site and datum then in use, on basis of slope-area measurement of peak flow; minimum daily discharge, 1.0 ft³/s, Dec. 15, 16, 1964, Jan. 24-27, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 23	1830	*942	a*9.31	May 30	1900	642	a8.53

a-Supplementary gage datum.

Minimum daily discharge, 4.9 ft³/s, Mar. 14, Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	8.0	7.1	5.7	5.7	5.3	5.2	14	347	49	14	8.3
2	9.3	8.0	6.8	5.8	5.7	5.5	5.3	15	273	42	18	8.4
3	9.8	7.9	6.5	5.7	5.7	5.0	4.9	14	276	39	14	8.4
4	8.9	7.6	6.4	6.0	5.5	5.2	5.2	14	246	37	13	8.2
5	8.6	7.4	6.7	6.1	5.5	5.2	5.8	14	225	34	12	7.8
6	7.8	7.4	6.4	6.2	5.5	5.2	6.1	14	192	32	12	8.0
7	7.4	7.7	6.7	6.3	5.3	5.1	6.4	13	176	30	12	8.3
8	7.4	7.2	6.6	6.2	5.3	5.2	6.7	13	158	29	11	8.4
9	7.4	6.8	6.9	6.2	5.5	5.3	7.7	16	151	33	11	8.7
10	8.4	7.5	6.9	6.2	5.5	5.4	7.0	25	136	36	11	8.7
11	8.4	8.0	7.1	5.9	5.5	5.3	5.6	36	179	27	10	8.7
12	7.8	8.0	6.4	5.5	5.4	5.3	6.2	57	145	24	10	8.7
13	7.5	7.7	7.4	5.7	5.4	5.2	6.6	84	153	23	10	8.7
14	8.5	7.3	6.4	5.7	5.3	4.9	7.2	127	159	21	10	8.7
15	9.4	7.4	6.0	5.7	5.4	5.2	7.8	236	153	20	11	8.7
16	9.5	7.2	6.0	5.7	5.3	5.3	9.1	448	146	19	11	8.7
17	9.2	7.0	6.0	5.7	5.3	5.1	13	532	128	19	11	8.6
18	9.9	7.1	6.0	5.7	5.3	5.1	16	436	124	18	11	8.2
19	10	6.4	6.0	5.7	5.3	5.0	21	445	113	17	11	8.0
20	9.3	5.8	6.0	5.7	5.3	5.0	22	575	100	17	11	8.0
21	9.5	5.6	6.0	5.7	5.3	5.3	19	676	91	16	11	8.0
22	9.4	5.4	5.8	5.7	5.3	5.7	16	538	84	22	10	8.4
23	9.8	5.4	5.7	5.7	5.4	5.8	18	605	75	26	9.8	8.4
24	11	5.9	5.4	5.7	5.3	7.1	18	701	68	18	9.4	8.4
25	9.4	6.1	5.3	5.7	5.3	6.8	19	413	63	17	9.1	8.9
26	9.5	6.4	5.4	5.7	5.3	6.4	12	339	59	16	9.0	9.4
27	9.6	6.7	5.5	5.7	5.3	6.1	9.9	321	55	15	8.6	9.4
28	9.0	6.9	5.6	5.7	5.3	6.1	11	295	52	14	8.1	9.4
29	8.4	6.9	5.5	5.7	5.3	6.1	12	365	48	13	7.8	7.9
30	8.0	7.1	5.5	5.7	---	5.9	13	437	52	13	7.9	8.0
31	8.0	---	5.6	5.7	---	5.6	---	477	---	13	8.1	---
TOTAL	274.4	209.8	191.6	180.1	156.5	170.7	322.7	8295	4227	749	332.8	254.4
MEAN	8.85	6.99	6.18	5.81	5.40	5.51	10.8	268	141	24.2	10.7	8.48
MAX	11	8.0	7.4	6.3	5.7	7.1	22	701	347	49	18	9.4
MIN	7.4	5.4	5.3	5.5	5.3	4.9	4.9	13	48	13	7.8	7.8
AC-FT	544	416	380	357	310	339	640	16450	8380	1490	660	505

CAL YR 1983 TOTAL 14837.9 MEAN 40.7 MAX 603 MIN 5.3 AC-FT 29430
WTR YR 1984 TOTAL 15364.0 MEAN 42.0 MAX 701 MIN 4.9 AC-FT 30470

06309450 BEAVER CREEK BELOW BAYER CREEK, NEAR BARNUM, WY

LOCATION.--Lat 43°39'55", long 107°03'48", in SE¼SE¼NW¼ sec.28, T.43 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.2 mi downstream from Bayer Creek and 7.7 mi west of Barnum.

DRAINAGE AREA.--10.9 mi².

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR WY-79-1: 1975.

GAGE.--Water-stage recorder. Altitude of gage is 7,030 ft, from topographic map. Prior to Mar. 30, 1978, at site 300 ft downstream at datum 3.95 ft lower.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--10 years, 7.52 ft³/s, 5,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft³/s, July 6, 1978, gage height, 2.72 ft; maximum gage height, 3.19 ft, Apr. 20, 1984 (backwater from snow); minimum daily discharge, 0.80 ft³/s, Dec. 30, 31, 1974, Jan. 2, 10-12, 1975, Feb. 10, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s and maximum (*)

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 20	1900	unknown	a*3.19	May 23	1745	141	2.63
May 16	1845	*173	2.73	June 11	0215	97	2.36

a-backwater from snow.

Minimum daily discharge, 1.7 ft³/s, Feb. 29 to Mar. 6, Mar. 8, 11, 12, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.5	2.9	2.8	2.2	1.7	2.2	4.0	44	18	8.9	4.7
2	4.5	3.5	3.0	2.9	2.2	1.7	2.3	4.0	40	17	8.5	4.6
3	4.8	3.4	3.0	2.9	2.2	1.7	2.2	4.1	46	16	7.9	4.4
4	4.3	3.4	3.0	2.9	2.2	1.7	2.3	4.1	43	15	7.7	4.3
5	4.1	3.4	2.8	2.9	2.2	1.7	2.3	4.3	40	15	7.5	4.3
6	3.9	3.4	2.7	2.9	2.2	1.7	2.5	4.2	36	14	7.3	4.3
7	3.9	3.4	2.8	2.9	2.2	1.8	2.8	4.1	35	14	7.1	4.2
8	3.8	2.7	3.5	2.9	2.2	1.7	3.2	4.7	38	14	6.8	4.2
9	3.7	3.6	3.4	2.9	2.2	2.0	3.0	8.3	41	14	6.7	4.2
10	3.8	3.9	3.3	2.7	2.0	2.5	2.6	11	37	14	6.5	4.1
11	3.8	3.9	3.2	3.0	2.0	1.7	2.5	13	47	13	6.3	4.2
12	3.7	3.8	3.4	3.1	2.0	1.7	2.4	20	33	12	6.3	4.1
13	3.7	3.3	3.4	3.0	2.0	1.9	2.6	27	34	12	6.2	4.1
14	4.2	3.6	3.3	2.9	2.0	1.8	2.6	40	33	12	6.2	4.0
15	3.8	3.5	3.1	2.8	2.0	1.8	3.0	76	32	11	6.3	3.9
16	4.1	3.7	3.1	2.8	2.0	1.8	4.2	103	30	11	5.9	3.9
17	4.0	3.6	3.0	2.7	2.0	1.7	5.6	68	33	11	5.8	3.7
18	4.0	3.6	2.9	2.6	1.9	1.8	6.5	50	30	10	5.6	3.7
19	4.0	3.2	2.8	2.5	1.9	1.8	8.1	57	28	10	5.6	3.7
20	3.9	3.4	2.6	2.6	1.9	1.8	6.0	73	26	9.7	5.5	3.9
21	3.8	2.4	2.4	2.7	1.9	1.9	6.6	78	24	9.5	5.3	4.2
22	3.8	2.9	2.4	2.8	2.0	2.0	6.0	57	24	12	5.2	4.2
23	3.9	3.5	2.5	2.8	2.0	2.0	6.5	75	23	10	5.0	4.6
24	4.0	3.1	2.6	2.9	2.0	2.1	6.6	69	22	9.4	4.9	4.6
25	3.8	4.1	2.7	2.9	2.0	2.2	5.4	46	21	12	4.8	4.5
26	3.7	3.7	2.7	2.7	2.0	2.2	4.0	51	20	9.2	4.8	4.6
27	3.7	3.3	2.7	2.3	2.0	2.1	2.8	51	20	8.6	4.7	4.4
28	3.7	3.1	2.6	2.2	1.8	2.2	5.8	47	19	8.3	4.6	4.2
29	3.6	2.9	2.7	2.2	1.7	2.1	5.2	48	18	8.3	4.7	4.0
30	3.5	2.8	2.8	2.2	---	2.2	4.5	50	20	8.3	4.7	4.1
31	3.5	---	2.8	2.2	---	2.2	---	50	---	8.6	4.7	---
TOTAL	121.1	101.6	90.1	84.6	58.9	59.2	122.3	1201.8	937	366.9	188.0	125.9
MEAN	3.91	3.39	2.91	2.73	2.03	1.91	4.08	38.8	31.2	11.8	6.06	4.20
MAX	4.8	4.1	3.5	3.1	2.2	2.5	8.1	103	47	18	8.9	4.7
MIN	3.5	2.4	2.4	2.2	1.7	1.7	2.2	4.0	18	8.3	4.6	3.7
AC-FT	240	202	179	168	117	117	243	2380	1860	728	373	250

CAL YR 1983 TOTAL 3268.6 MEAN 8.96 MAX 49 MIN 2.4 AC-FT 6480
WTR YR 1984 TOTAL 3457.4 MEAN 9.45 MAX 103 MIN 1.7 AC-FT 6860

06309460 BEAVER CREEK ABOVE WHITE PANTHER DITCH, NEAR BARNUM, WY

LOCATION.--Lat 43°41'52", long 106°56'52", in SE¼SW¼NW¼ sec.16, T.43 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.1 mi upstream from White Panther ditch and 3.0 mi northwest of Barnum.

DRAINAGE AREA.--24.2 mi².

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR WY-78-1: 1975-77 (M), WDR WY-79-1: 1975, WDR WY-83: 1979, 1982 (M).

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft, from topograhic map.

REMARKS.--Records good except those for December and January, which are fair. No diversion above station.

AVERAGE DISCHARGE.--10 years, 15.3 ft³/s, 11,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 797 ft³/s, July 6, 1978, gage height, 5.94 ft, from floodmarks, from rating curve extended above 140 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 5.2 ft³/s, Mar. 21, Apr. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	2200	*219	*1.78	June 11	0430	116	1.26
May 23	2000	194	1.57				

Minimum daily discharge, 6.8 ft³/s, Apr. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	12	10	9.3	9.1	8.8	13	67	31	20	14
2	13	11	11	11	9.2	9.1	8.5	13	61	28	19	14
3	13	11	11	11	9.5	9.1	8.8	13	68	27	18	14
4	13	11	11	11	9.5	9.1	8.6	12	61	27	18	14
5	12	11	11	11	9.4	8.6	8.8	12	56	26	17	14
6	12	11	10	11	9.2	9.0	9.0	12	55	25	17	14
7	12	11	11	11	9.2	9.1	9.3	12	53	25	17	14
8	12	10	10	10	9.2	9.0	9.6	13	55	25	17	14
9	12	10	11	9.6	9.2	9.4	9.8	17	56	25	17	14
10	12	11	11	9.2	9.2	9.0	9.2	21	52	26	16	14
11	12	12	11	9.3	9.2	9.4	8.9	24	68	24	16	14
12	12	12	10	8.8	8.8	9.2	8.1	30	49	23	16	13
13	12	11	10	10	9.4	9.1	8.8	39	48	23	16	14
14	12	11	11	9.1	9.3	9.0	8.7	52	48	22	16	13
15	12	10	11	9.5	9.0	9.3	9.2	93	47	22	17	14
16	12	12	11	9.2	9.3	9.2	10	130	44	21	16	13
17	12	11	10	9.2	9.3	9.1	13	94	47	21	16	13
18	12	12	9.4	9.0	9.2	9.2	14	64	44	21	16	13
19	12	9.4	9.2	9.2	9.1	9.0	16	69	43	20	16	13
20	12	9.7	8.9	9.6	9.1	8.9	13	95	40	20	16	13
21	12	9.7	8.8	10	9.3	9.0	15	104	39	20	15	13
22	12	8.0	8.7	10	8.9	9.2	13	78	39	22	15	14
23	11	9.5	8.9	10	9.1	9.0	15	99	38	23	15	14
24	12	9.9	9.0	10	9.2	9.1	16	104	36	20	15	14
25	11	11	9.2	10	9.5	9.3	14	69	35	22	15	14
26	11	12	9.4	10	9.2	9.0	12	72	34	20	15	14
27	11	11	9.4	10	9.2	8.9	6.8	76	33	19	14	14
28	11	11	9.6	9.6	9.1	8.6	9.2	69	32	19	14	14
29	11	11	9.8	8.2	9.2	8.5	13	70	30	18	14	14
30	11	11	9.8	9.4	---	8.8	13	70	31	18	14	13
31	11	---	9.9	9.4	---	8.6	---	73	---	18	14	---
TOTAL	367	322.2	313.0	304.3	267.3	279.9	327.1	1712	1409	701	497	411
MEAN	11.8	10.7	10.1	9.82	9.22	9.03	10.9	55.2	47.0	22.6	16.0	13.7
MAX	13	12	12	11	9.5	9.4	16	130	68	31	20	14
MIN	11	8.0	8.7	8.2	8.8	8.5	6.8	12	30	18	14	13
AC-FT	728	639	621	604	530	555	649	3400	2790	1390	986	815

CAL YR 1983 TOTAL 6056.6 MEAN 16.6 MAX 61 MIN 5.8 AC-FT 12010
WTR YR 1984 TOTAL 6910.8 MEAN 18.9 MAX 130 MIN 6.8 AC-FT 13710

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY

LOCATION.--Lat 43°38'51", long 106°48'29", in SW¼SW¼ sec.34, T.43 N., R.83 W., Johnson County, Hydrologic Unit 10090201, on right bank 680 ft upstream from bridge on county road, 3.5 mi upstream from Red Fork Powder River, 4 mi downstream from Beaver Creek, and 10 mi southwest of Kaycee.

DRAINAGE AREA.--450 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1949 to September 1970, April to September 1984.

REVISED RECORDS.--WSP 1916: 1955, 1957(P), 1958, 1959(P).

GAGE.--Water-stage recorder. Datum of gage is 4,874.76 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation above station (for details on adjudication of diversions, see Remarks for this station in WSP 1209).

AVERAGE DISCHARGE.--21 years (water years 1950-70), 71.7 ft³/s, 51,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, June 8, 1968, gage height, 8.74 ft; minimum daily, 12 ft³/s, Aug. 28, 29, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage for undetermined period, about 11.7 ft, date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 17	0300	1,090	6.50	May 31	0230	933	5.98
May 24	0400	*1,360	*7.30				

Minimum daily discharge during period of operation, 43 ft³/s, Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							53	85	688	121	68	54
2							54	87	512	108	107	48
3							55	87	471	104	117	47
4							55	86	488	103	74	51
5							54	88	427	99	64	46
6							54	90	382	95	61	44
7							55	87	340	92	59	44
8							56	83	312	90	56	43
9							58	90	308	93	56	45
10							55	111	283	110	54	46
11							55	124	365	92	51	47
12							49	147	290	86	50	49
13							54	198	282	84	50	46
14							53	259	300	84	49	45
15							55	419	290	87	51	46
16							58	724	287	86	59	46
17							64	996	258	83	57	45
18							72	838	234	82	56	45
19							80	744	237	79	55	45
20							103	884	205	79	57	45
21							80	1140	190	79	54	46
22							78	978	180	83	49	50
23							79	856	171	104	49	51
24							86	1240	160	81	46	59
25							90	881	149	71	46	59
26							83	638	140	74	47	59
27							65	628	131	71	47	59
28							66	543	124	70	46	58
29							90	570	116	64	46	56
30							85	678	114	59	46	56
31							---	752	---	59	47	---
TOTAL							1994	15131	8434	2672	1774	1480
MEAN							66.5	488	281	86.2	57.2	49.3
MAX							103	1240	688	121	117	59
MIN							49	83	114	59	46	43
AC-FT							3960	30010	16730	5300	3520	2940

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-54, May to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
MAY										
15...	1600	380	400	8.3	11.0	1600	8.7	96	230	200
JUN										
14...	1730	282	390	8.1	18.0	300	7.9	100	170	190
JUL										
09...	1445	92	670	8.4	18.5	15	7.9	102	110	320
AUG										
06...	1130	61	830	8.2	18.0	220	8.0	101	220	430
SEP										
10...	1245	45	880	--	14.0	2.5	10.1	117	K8	460

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
MAY										
15...	52	16	6.1	.2	1.9	91	100	2.9	.20	7.9
JUN										
14...	50	16	7.2	.2	1.5	102	88	3.4	.20	8.1
JUL										
09...	87	26	13	.3	1.8	151	200	6.3	.30	8.9
AUG										
06...	120	32	17	.4	2.7	172	270	8.7	.30	10
SEP										
10...	120	38	18	.4	2.3	163	310	9.0	.30	8.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAY									
15...	251	240	.34	258	.40	.36	.130	1.0	.650
JUN									
14...	244	240	.33	186	.10	.10	.020	.70	.260
JUL									
09...	433	430	.59	108	<.10	<.10	.110	.40	.040
AUG									
06...	609	560	.83	100	.20	.11	.050	1.5	.120
SEP									
10...	625	600	.85	76	<.10	<.10	.050	<.20	.010

06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY

LOCATION.--Lat 44°01'43", long 107°04'55", in NW¼SE¼NW¼ sec.21, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.5 mi downstream from Twin Creek, 0.7 mi upstream from Dullknife Reservoir, 7.2 mi southwest of Hazelton, and 19 mi northwest of Mayoworth.

DRAINAGE AREA.--24.5 mi².

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1279: 1947-48(M), 1949, 1950-51(M), 1952.

GAGE.--Water-stage recorder. Altitude of gage is 8,180 ft, from topographic map. Prior to Oct. 1, 1966, at site 0.8 mi downstream at different datum.

REMARKS.--Records fair except those for November to May, are poor. No diversion above station.

AVERAGE DISCHARGE.--38 years, 14.9 ft³/s, 10,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 886 ft³/s, June 15, 1953, gage height, 4.34 ft, site and datum then in use, from rating curve extended above 110 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 6.21 ft, May 14, 1984 (backwater from ice); minimum daily discharge, 0.60 ft³/s, Oct. 30, 1960, Apr. 9, 12, 15-17, 1961, but may have been less during winter months of water years 1947-48.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 190 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 14	2000	ice jam	*6.21	May 30	2030	319	3.74
May 20	1900	243	3.46	June 13	2300	230	3.37
May 23	2030	*364	3.95				

Minimum daily discharge, 1.4 ft³/s, Mar. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.6	3.0	3.2	1.9	1.6	1.8	1.8	157	54	17	5.6
2	5.3	4.6	2.7	3.2	1.9	1.6	1.8	1.9	109	38	23	5.6
3	5.3	4.3	2.9	3.3	1.9	1.6	1.8	1.9	120	35	14	5.3
4	5.9	4.3	3.2	3.3	1.8	1.6	1.8	1.9	125	33	12	5.6
5	7.1	4.6	2.8	3.3	1.8	1.5	1.9	1.9	126	31	12	5.3
6	5.6	4.1	2.8	3.2	1.8	1.4	1.9	1.9	103	29	11	5.9
7	5.1	4.0	2.9	3.1	1.8	1.4	1.9	2.0	100	27	10	6.2
8	5.1	3.7	2.9	3.0	1.7	1.4	1.9	2.0	91	29	9.5	5.6
9	5.1	3.1	3.1	2.9	1.7	1.5	1.9	2.1	91	33	9.1	5.9
10	5.6	3.4	3.5	2.9	1.7	1.5	1.9	2.7	95	33	9.1	5.6
11	5.6	3.7	3.5	2.9	1.7	1.5	1.8	4.2	138	27	8.8	5.3
12	4.8	3.8	3.5	2.8	1.7	1.6	1.8	8.0	107	23	9.1	5.6
13	4.6	3.9	3.3	2.8	1.7	1.6	1.9	20	128	22	9.1	5.1
14	4.8	3.8	3.2	2.7	1.7	1.7	2.0	52	173	24	8.3	5.1
15	5.9	3.7	3.2	2.7	1.7	1.8	2.2	68	180	20	7.7	5.1
16	5.1	3.8	3.1	2.6	1.6	1.8	2.3	85	142	19	7.7	5.1
17	7.7	4.0	3.1	2.6	1.7	1.8	2.3	110	123	18	9.5	4.8
18	5.6	3.9	3.0	2.5	1.6	1.8	2.3	133	105	16	9.1	4.8
19	7.1	3.7	2.9	2.5	1.5	1.8	2.1	150	100	16	10	4.6
20	9.9	3.6	2.8	2.4	1.5	1.8	2.0	170	95	17	18	4.6
21	9.9	3.3	2.7	2.4	1.6	1.8	2.0	146	88	15	9.6	5.6
22	5.9	3.1	2.7	2.3	1.6	1.8	2.0	108	79	18	7.7	6.5
23	5.9	2.9	2.7	2.3	1.5	1.8	2.1	170	71	24	7.4	6.5
24	5.3	3.0	2.8	2.2	1.5	1.8	2.2	181	64	16	7.1	6.2
25	9.1	3.4	2.9	2.2	1.5	1.8	2.1	92	58	21	6.5	6.2
26	7.1	3.5	3.0	2.1	1.6	1.8	2.1	87	54	27	6.5	6.6
27	5.3	2.7	3.0	2.1	1.5	1.7	2.0	95	50	16	6.2	6.8
28	5.1	2.8	3.0	2.1	1.5	1.7	1.9	107	46	14	5.9	6.4
29	5.6	2.6	3.0	2.0	1.5	1.7	1.8	164	42	14	5.6	6.2
30	5.6	2.3	3.0	2.0	---	1.7	1.8	206	53	14	5.6	6.8
31	4.6	---	3.1	2.0	---	1.7	---	207	---	13	5.9	---
TOTAL	185.4	108.2	93.3	81.6	48.2	51.6	59.3	2383.3	3013	736	298.0	170.5
MEAN	5.98	3.61	3.01	2.63	1.66	1.66	1.98	76.9	100	23.7	9.61	5.68
MAX	9.9	4.6	3.5	3.3	1.9	1.8	2.3	207	180	54	23	6.8
MIN	4.6	2.3	2.7	2.0	1.5	1.4	1.8	1.8	42	13	5.6	4.6
AC-FT	368	215	185	162	96	102	118	4730	5980	1460	591	338

CAL YR 1983 TOTAL 6157.2 MEAN 16.9 MAX 255 MIN 2.3 AC-FT 12210
WTR YR 1984 TOTAL 7228.4 MEAN 19.7 MAX 207 MIN 1.4 AC-FT 14340

06311060 NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON, WY

LOCATION.--Lat 44°00'29", long 107°01'08", in NE¼SE¼SW¼ sec.25, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 60 ft downstream from Bull Creek, 2.1 mi downstream from Dullknife Reservoir, and 6.8 mi southwest of Hazelton.

DRAINAGE AREA.--32.3 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,840 ft, from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, Dec. 3 to May 8, which are poor. Flow regulated by Dullknife Reservoir 2.1 mi upstream, capacity, 4,350 acre-ft.

AVERAGE DISCHARGE.--10 years, 19.2 ft³/s, 13,910 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 458 ft³/s, May 27, 1983, gage height, 4.48 ft, from floodmarks; minimum daily, 0.50 ft³/s, Jan. 24-30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 242 ft³/s, May 17, gage height, 3.64 ft; minimum daily, 1.4 ft³/s, Oct. 6, 9, 12, 13, 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.7	2.3	2.3	2.5	2.6	3.3	3.3	99	67	42	21
2	1.8	2.7	2.1	2.3	2.6	2.7	3.3	3.5	98	42	43	20
3	2.1	2.7	2.3	2.3	2.6	2.7	3.3	3.5	108	36	35	17
4	1.8	2.7	2.5	2.4	2.6	2.7	3.3	3.5	111	34	26	17
5	1.6	2.7	2.2	2.4	2.6	2.7	3.5	3.5	143	31	26	16
6	1.4	2.7	2.2	2.3	2.6	2.7	3.5	3.5	145	29	26	17
7	1.5	2.7	2.3	2.2	2.6	2.7	3.5	3.7	136	27	26	17
8	1.5	2.6	2.3	2.2	2.6	2.7	3.5	4.0	135	29	26	15
9	1.4	2.4	2.4	2.1	2.6	2.7	3.5	3.7	159	34	25	14
10	1.7	2.6	2.7	2.1	2.6	2.7	3.4	4.4	179	34	22	13
11	1.5	2.7	2.7	2.1	2.6	2.7	3.3	5.3	189	31	13	13
12	1.4	2.8	2.7	2.0	2.6	2.7	3.3	8.9	174	24	13	14
13	1.4	3.0	2.5	2.0	2.6	2.8	3.5	14	149	22	13	13
14	1.7	3.0	2.5	1.8	2.6	3.0	3.7	22	138	23	13	13
15	1.7	3.0	2.5	1.7	2.5	3.3	4.0	64	144	21	13	13
16	1.8	3.0	2.4	1.8	2.5	3.3	4.2	80	142	19	13	13
17	2.0	3.0	2.4	1.7	2.5	3.3	4.2	116	144	17	17	13
18	1.8	3.0	2.4	1.6	2.5	3.3	4.2	220	139	17	23	13
19	1.9	2.9	2.3	1.6	2.5	3.3	4.2	219	138	17	23	13
20	2.0	2.8	2.2	1.8	2.5	3.3	4.0	215	118	22	23	13
21	1.7	2.6	2.1	2.0	2.5	3.3	3.8	206	96	29	22	13
22	1.5	2.4	2.1	2.0	2.6	3.3	3.8	198	71	29	22	14
23	1.6	2.3	2.1	2.1	2.6	3.3	3.9	202	33	30	21	15
24	1.6	2.3	2.2	2.2	2.6	3.3	4.0	206	64	29	22	15
25	1.8	2.5	2.3	2.5	2.6	3.3	3.9	190	64	31	21	14
26	1.5	2.3	2.3	2.5	2.6	3.2	3.9	183	59	29	21	15
27	1.4	2.1	2.3	2.5	2.6	3.1	3.6	185	54	33	21	15
28	1.4	2.2	2.3	2.5	2.6	3.1	3.5	163	48	41	21	14
29	1.7	2.0	2.3	2.5	2.6	3.1	3.4	121	43	41	21	14
30	2.9	1.8	2.3	2.5	---	3.1	3.3	123	52	41	21	14
31	2.7	---	2.3	2.5	---	3.1	---	113	---	41	21	---
TOTAL	53.3	78.2	72.5	66.5	74.6	93.1	109.8	2890.8	3372	950	695	441
MEAN	1.72	2.61	2.34	2.15	2.57	3.00	3.66	93.3	112	30.6	22.4	14.7
MAX	2.9	3.0	2.7	2.5	2.6	3.3	4.2	220	189	67	43	21
MIN	1.4	1.8	2.1	1.6	2.5	2.6	3.3	3.3	33	17	13	13
AC-FT	106	155	144	132	148	185	218	5730	6690	1880	1380	875

CAL YR 1983 TOTAL 8207.1 MEAN 22.5 MAX 270 MIN 1.3 AC-FT 16280
WTR YR 1984 TOTAL 8896.8 MEAN 24.3 MAX 220 MIN 1.4 AC-FT 17650

06311400 NORTH FORK POWDER RIVER BELOW PASS CREEK, NEAR MAYOWORTH, WY

LOCATION.--Lat 43°54'41", long 106°53'20", in NW¼NE¼SE¼ sec.36, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.8 mi downstream from Pass Creek, 1.2 mi upstream from Hat Ranch, 7.2 mi northwest of Mayoworth, and 13 mi downstream from Dullknife Reservoir.

DRAINAGE AREA.--100 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,700 ft, from topographic map. Prior to Sept. 15, 1983, at site 60 ft downstream at same datum.

REMARKS.--Records good. Some regulation for irrigation by Dullknife Reservoir 13 mi upstream, capacity, 4,350 acre-ft.

AVERAGE DISCHARGE.--11 years, 35.4 ft³/s, 25,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft³/s, Aug. 1, 1984, gage height, 8.89 ft, from floodmarks, from rating curve extended above 400 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 13 ft³/s, Feb. 5, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft³/s, Aug. 1, gage height, 8.89 ft, from floodmarks, from rating curve extended above 400 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 14 ft³/s, Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	20	18	19	18	18	18	132	113	158	39
2	22	20	21	18	18	18	18	17	127	81	200	38
3	23	20	21	19	19	19	18	17	139	67	56	34
4	23	20	22	19	18	18	18	17	147	64	52	34
5	22	20	20	19	18	18	17	17	161	60	50	34
6	19	20	21	19	18	18	17	17	170	55	48	35
7	20	21	21	19	19	18	17	17	155	53	46	35
8	20	20	21	19	19	18	17	17	158	53	45	35
9	19	19	20	19	19	18	17	17	179	59	44	34
10	20	19	20	19	19	18	17	18	203	59	43	32
11	20	20	20	19	19	18	17	18	261	58	30	30
12	20	20	20	19	19	18	17	19	197	50	29	30
13	20	20	20	19	19	18	17	26	180	45	29	29
14	21	19	20	18	20	18	17	45	166	45	28	29
15	21	19	19	17	19	18	17	161	175	42	29	29
16	20	19	19	17	19	18	17	246	169	40	29	29
17	20	19	17	16	20	18	17	177	171	37	29	29
18	20	20	15	16	19	18	17	247	162	35	36	29
19	20	19	15	17	21	18	19	268	160	35	41	29
20	20	19	15	18	19	18	20	285	150	34	40	29
21	20	19	14	18	19	18	19	260	126	47	40	30
22	20	18	15	18	19	19	18	233	113	49	39	30
23	20	17	16	18	19	18	18	241	66	51	39	33
24	20	17	16	19	19	18	18	284	87	49	39	33
25	21	21	17	19	20	19	18	240	92	49	38	32
26	21	20	17	19	19	18	18	220	88	50	39	34
27	21	19	17	19	19	18	17	222	79	49	39	34
28	21	20	18	19	18	18	17	203	74	56	38	34
29	21	20	18	19	18	18	17	156	80	58	38	34
30	21	19	19	18	---	18	17	158	86	59	39	34
31	21	---	19	18	---	18	---	148	---	59	39	---
TOTAL	638	583	573	568	550	561	526	4029	4253	1661	1489	970
MEAN	20.6	19.4	18.5	18.3	19.0	18.1	17.5	130	142	53.6	48.0	32.3
MAX	23	21	22	19	21	19	20	285	261	113	200	39
MIN	19	17	14	16	18	18	17	17	66	34	28	29
AC-FT	1270	1160	1140	1130	1090	1110	1040	7990	8440	3290	2950	1920

CAL YR 1983 TOTAL 15881 MEAN 43.5 MAX 287 MIN 14 AC-FT 31500
WTR YR 1984 TOTAL 16401 MEAN 44.8 MAX 285 MIN 14 AC-FT 32530

06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼NW¼SW¼ sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, at former gaging station at D Ranch, 600 ft downstream from headgate of Sussex Irrigation Canal, 2.0 mi downstream from confluence of North and Middle Forks, and 6.0 mi east of Kaycee.

DRAINAGE AREA.--980 mi², approximately.

PERIOD OF RECORD.--Water years 1946-47, 1949-54, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 10...	1415	52	1090	8.5	3.0	11.6	103	76	440	110
JAN 31...	1500	134	1120	8.0	.0	11.6	95	140	470	120
MAY 16...	1300	1300	580	8.1	12.0	8.0	89	K4000	250	67
JUL 09...	1000	81	1100	8.5	21.5	7.7	105	K320	370	92

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
NOV 10...	41	85	2	1.7	180	340	43	.20	7.0
JAN 31...	42	91	2	2.8	200	360	46	.20	9.8
MAY 16...	21	28	.8	2.0	130	180	7.7	.10	7.3
JUL 09...	35	66	2	2.4	190	270	35	.20	8.6

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 10...	740	1.0	103	.70	.50	.040	.46	.50	.000
JAN 31...	790	1.1	286	.90	.90	.130	.27	.40	.010
MAY 16...	390	.53	1370	.50	.60	.050	.25	.30	.270
JUL 09...	620	.85	136	<.10	.00	.050	.45	.50	.030

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°37'03", long 106°34'39", in NW¼SE¼SE¼ sec.9, T.42 N., R.81 W., Johnson County, Hydrologic Unit 10090203, on right bank 1,000 ft upstream from bridge on old U.S. Highway 87, 0.8 mi upstream from bridge on Interstate 25, 1.7 mi upstream from Murphy Creek, 6.6 mi southeast of Kaycee, and 7 mi upstream from mouth.

DRAINAGE AREA.--1,150 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to October 1911, April 1938 to June 1940, May 1950 to September 1969, October 1978 to September 1980, April 1983 to September 1984 (discontinued). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,590 ft, from topographic map. May 11 to Nov. 18, 1911, non-recording gage at site 2.1 mi downstream at different datum. Apr. 9, 1938, to June 30, 1940, non-recording gage at site 400 ft downstream at datum 0.14 ft higher. May 1, 1950, to Dec. 3, 1956, water-stage recorder at site 400 ft downstream at datum 2.04 ft higher. Dec. 4, 1956, to Sept. 30, 1962, at site 700 ft downstream at datum 0.91 ft higher. Oct. 1, 1962, to Sept. 30, 1969, at site 700 ft downstream at datum 0.35 ft lower. Oct. 1, 1978, to Sept. 30, 1980, at site 1.1 mi upstream at different datum.

REMARKS.--Records poor. Adjudications for 16 small reservoirs, combined capacity, 1,300 acre-ft for storage of water above station for stock and irrigation use. Water rights totaling 62.4 ft³/s for irrigation of about 4,350 acres above station.

AVERAGE DISCHARGE.--23 years (water years 1939, 1951-69, 1979-80, 1984) 36.5 ft³/s, 26,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,500 ft³/s, May 22, 1962, gage height, 13.17 ft, site and datum then in use, from rating curve extended above 14,000 ft³/s on basis of slope-area measurement of peak flow; no flow in 1911, 1939, 1969, 1979, 1983, and 1984 water years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 14	2400	unknown	a*6.35
May 3	0630	*1,220	5.28

a-backwater from ice jam.

No flow on several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	4.4	1.4	.50	4.0	8.9	80	412	30	.60	27	.01
2	3.8	3.9	1.6	.40	4.6	14	85	741	28	.50	16	.01
3	11	3.9	1.6	.48	3.5	12	92	958	44	.34	119	.01
4	2.0	4.2	1.4	.72	2.9	16	129	645	36	.41	32	.01
5	.98	3.9	1.1	3.3	3.4	22	193	453	33	.16	15	.00
6	.50	4.7	.76	18	4.2	32	248	343	30	.07	9.5	.00
7	.35	5.4	.81	21	4.9	45	337	290	26	.03	5.8	.00
8	.28	6.4	1.1	33	5.6	39	315	240	24	.03	3.2	.00
9	.36	7.6	1.5	28	6.2	52	331	204	30	.28	1.7	.00
10	.57	11	2.3	22	6.8	72	282	180	37	6.9	.42	.00
11	.85	19	3.8	18	6.1	100	249	149	43	20	.02	.00
12	1.0	28	5.9	12	5.3	120	212	138	27	15	.01	.00
13	1.5	19	4.6	6.6	5.6	150	150	111	23	7.9	.01	.00
14	2.7	16	3.8	4.4	6.2	373	120	97	104	5.0	.01	.00
15	6.1	10	2.8	3.6	4.7	619	112	122	48	1.5	.01	.00
16	5.4	12	2.0	4.3	5.3	522	117	123	33	.42	1.7	.00
17	4.7	9.0	1.1	2.7	5.7	364	132	149	21	.12	3.9	.00
18	7.1	13	.50	1.6	5.1	310	147	166	15	.10	1.5	.00
19	14	10	.27	1.2	4.4	231	162	146	12	.10	1.5	.00
20	14	8.2	.19	1.4	4.9	227	193	103	11	.08	.29	.00
21	6.7	4.5	.14	2.0	5.7	286	190	85	9.8	.10	.03	.00
22	4.3	2.7	.11	2.3	6.2	387	182	83	8.4	.16	.02	.00
23	3.9	1.6	.13	2.7	5.4	260	167	79	7.7	.16	.01	.00
24	9.4	1.8	.15	2.2	4.4	249	134	123	7.1	.16	.01	.01
25	6.6	2.3	.17	1.7	4.6	314	144	119	5.4	.06	.01	.02
26	5.4	2.5	.19	.72	5.0	281	100	101	3.0	.06	.01	.35
27	4.7	1.4	.18	1.4	4.2	182	30	81	1.2	.10	.01	.03
28	3.9	1.3	.17	3.1	3.6	155	81	64	.59	.10	.01	.06
29	3.5	.97	.21	5.5	5.2	155	205	49	.40	.90	.01	.03
30	3.9	1.1	.40	9.9	---	113	254	40	.30	.71	.01	.03
31	4.2	---	.62	6.1	---	319	---	35	---	42	.01	---
TOTAL	133.97	219.77	41.00	220.82	143.7	6029.9	5173	6629	698.89	104.05	238.71	.57
MEAN	4.32	7.33	1.32	7.12	4.96	195	172	214	23.3	3.36	7.70	.019
MAX	14	28	5.9	33	6.8	619	337	958	104	42	119	.35
MIN	.28	.97	.11	.40	2.9	8.9	30	35	.30	.03	.01	.00
AC-FT	266	436	81	438	285	11960	10260	13150	1390	206	473	1.1

WTR YR 1984 TOTAL 19633.38 MEAN 53.6 MAX 958 MIN .00 AC-FT 38940

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-53, 1968 to December 1981, April 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: April 1983 to September 1984 (discontinued).

REMARKS.--Sediment loads for days when no concentration is listed are based on a sediment transport curve.

INSTRUMENTATION.--Sediment pumping sampler since April 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum observed, 7,860 micromhos, July 9, 1984; minimum observed, 990 micromhos, Dec. 30, 1983.
SEDIMENT CONCENTRATION: Maximum daily mean, 137,000 mg/L, Aug. 5, 1983; no flow on several days each year.
SEDIMENT LOADS: Maximum daily, 283,000 tons, Aug. 5, 1983; no flow on several days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum observed, 7,860 micromhos, July 9; minimum observed, 990 micromhos, Dec. 30.
SEDIMENT CONCENTRATION: Maximum daily mean observed, 45,000 mg/L, July 31, Aug. 1, but may have been exceeded during periods of missing record; no flow on several days.
SEDIMENT LOADS: Maximum daily, 166,000 tons, Mar. 15, based on sediment transport curve; no flow on several days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
NOV										
10...	1130	7.3	3110	2.0	870	220	78	440	7	7.8
DEC										
30...	1130	.28	4320	1.0	1100	250	110	620	8	8.6
FEB										
10...	1100	6.8	3170	1.0	980	270	74	410	6	6.1
MAR										
13...	1315	99	2860	4.0	750	200	61	400	7	7.1
APR										
04...	0900	101	2900	5.0	700	170	68	420	7	6.2
JUN										
06...	1630	27	3850	9.5	960	220	100	560	8	8.7
11...	1245	44	3000	18.0	730	180	67	420	7	7.9
JUL										
02...	1100	.70	4350	25.0	1100	270	100	670	9	12
AUG										
06...	1630	8.6	4150	27.0	1200	330	90	680	9	15
SEP										
27...	0930	E.02	4610	5.0	1000	260	91	730	10	9.9

E-Estimate.

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
NOV										
10...	143	1600	93	.80	5.7	2680	2500	3.6	53	1.4
DEC										
30...	187	2200	140	.60	7.5	3650	3400	5.0	2.8	.58
FEB										
10...	176	1500	100	.70	9.1	2930	2500	4.0	54	4.3
MAR										
13...	122	1400	56	.60	6.4	2300	2200	3.1	615	1.9
APR										
04...	140	1400	35	.80	8.2	2310	2200	3.1	630	1.4
JUN										
06...	174	1900	75	.80	13	3230	3000	4.4	235	<.10
11...	128	1500	54	.90	7.5	2330	2300	3.2	277	3.3
JUL										
02...	164	2200	180	1.0	8.8	3620	3500	4.9	6.8	<.10
AUG										
06...	309	2300	110	1.2	9.1	3650	3700	5.0	85	.89
SEP										
27...	189	2100	290	1.2	7.7	3840	3600	5.2	--	<.10

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
APR				
03...	0900	70	83	90
MAY				
02...	1600	44	53	64
04...	1445	51	57	63
JUN				
11...	1245	90	94	97

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
JUL									
02...	1100	.74	2	5	36	77	90	96	99

SPECIFIC CONDUCTANCE, LABORATORY (MICROMHOS/CM AT 25 D, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	---	---			---	3270	---	5220	
2		---	---	---	---			---	3270	4390	---	
3		---	---	---	---			---	3370	---	---	
4		---	---	---	---			---	3410	---	---	
5		---	---	---	---			---	3370	---	---	
6		---	---	1350	---			---	3750	---	4700	
7		---	---	---	---			---	---	---	5420	
8		---	---	---	---			---	---	---	6050	
9		---	---	---	---			---	---	7860	---	
10		3200	---	---	2650			---	3570	3880	---	
11		---	---	---	---			3340	3100	---	---	
12		---	---	---	---			3310	3610	7220	---	
13		---	---	---	---			3310	3620	5660	---	
14		---	---	---	---			3320	3580	5350	---	
15		---	---	---	---			3220	---	5220	---	
16		---	---	---	---			2930	---	---	---	
17		---	---	---	---			---	---	4350	---	
18		---	---	---	---			---	---	---	---	
19		---	---	---	---			---	---	---	---	
20		---	---	---	---			---	---	---	---	
21		---	---	---	---			2400	4330	---	---	
22		---	---	---	---			2570	4220	---	---	
23		---	---	---	---			3090	4190	---	---	
24		---	---	---	---			2630	4150	---	---	
25		---	---	---	---			2540	4260	---	---	
26		---	---	---	---			3000	4280	---	---	
27		---	---	---	---			3210	4260	---	---	
28		---	---	---	---			3040	4310	---	---	
29		---	---	990	---			3010	4440	3340	---	
30		---	990	---	---			3100	---	3340	---	
31		---	---	---	---			3200	---	5760	---	
MEAN		3200	990	1170	2650			3010	3820	5120	5350	
MAX		3200	990	1350	2650			3340	4440	7860	6050	
MIN		3200	990	990	2650			2400	3100	3340	4700	

WTR YR 1984 MEAN 3760 MAX 7860 MIN 990

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.28		.01	4.4	---	10	1.4	---	1.6
2	3.8		1.8	3.9	---	8.7	1.6	---	2.2
3	11		17	3.9	---	9.1	1.6	---	2.2
4	2.0		.49	4.2	---	11	1.4	---	1.7
5	.98		.10	3.9	---	9.5	1.1	---	1.0
6	.50		.03	4.7	---	15	.76	---	.48
7	.35		.02	5.4	---	22	.81	---	.54
8	.28		.01	6.4	---	32	1.1	---	1.0
9	.36		.02	7.6	---	48	1.5	---	2.0
10	.57		.04	11	3640	108	2.3	---	4.8
11	.85		.08	19	---	335	3.8	---	14
12	1.0		.12	28	---	763	5.9	---	35
13	1.5		.27	19	---	340	4.6	---	21
14	2.7		.92	16	---	238	3.8	---	14
15	6.1		5.0	10	---	91	2.8	---	7.4
16	5.4		3.9	12	---	133	2.0	---	3.7
17	4.7		2.9	9.0	---	73	1.1	---	1.1
18	7.1		6.9	13	---	160	.50	---	.21
19	14		28	10	---	92	.27	---	.08
20	14		34	8.2	---	61	.19	---	.07
21	6.7		9.1	4.5	---	18	.14	---	.02
22	4.3		4.1	2.7	---	6.2	.11	---	.01
23	3.9		4.0	1.6	---	2.1	.13	---	.02
24	9.4		27	1.8	---	2.7	.15	---	.02
25	6.6		14	2.3	---	4.5	.17	---	.02
26	5.4		11	2.5	---	5.3	.19	---	.08
27	4.7		8.4	1.4	---	1.6	.18	---	.07
28	3.9		6.3	1.3	---	1.4	.17	---	.07
29	3.5		5.4	.97	---	.76	.21	---	.08
30	3.9		7.1	1.1	---	.99	.40	130	.14
31	4.2		9.0	---	---	---	.62	---	.35
TOTAL	133.97		207.01	219.77	---	2602.85	41.00	---	114.96
		JANUARY			FEBRUARY			MARCH	
1	.50	---	.22	4.0	---	4.1	8.9	---	23
2	.40	---	.14	4.6	---	5.6	14	---	59
3	.48	---	.21	3.5	---	3.2	12	---	43
4	.72	---	.48	2.9	---	2.1	16	---	78
5	3.3	---	6.7	3.4	---	3.0	22	---	152
6	18	1670	81	4.2	---	4.8	32	---	331
7	21	---	111	4.9	---	6.7	45	---	672
8	33	---	285	5.6	---	8.8	39	---	500
9	28	---	203	6.2	---	11	52	---	907
10	22	---	123	6.8	708	13	72	---	1780
11	18	---	86	6.1	---	11	100	---	3530
12	12	---	37	5.3	---	7.9	120	---	5160
13	6.6	---	11	5.6	---	8.8	150	20300	8210
14	4.4	---	4.6	6.2	---	11	373	---	54600
15	3.6	---	3.0	4.7	---	6.1	619	---	166000
16	4.3	---	4.4	5.3	---	7.9	522	---	98600
17	2.7	---	1.7	5.7	---	9.1	364	---	39600
18	1.6	---	.56	5.1	---	7.2	310	---	24800
19	1.2	---	.31	4.4	---	5.3	231	---	10600
20	1.4	---	.45	4.9	---	6.7	227	---	8420
21	2.0	---	.94	5.7	---	9.1	286	13200	10200
22	2.3	---	1.2	6.2	---	11	387	---	19700
23	2.7	---	1.7	5.4	---	8.2	260	---	8720
24	2.2	---	1.1	4.4	---	5.3	249	---	8190
25	1.7	---	.67	4.6	---	5.8	314	---	13600
26	.72	---	.11	5.0	---	7.0	281	---	11000
27	1.4	---	.45	4.2	---	4.8	182	---	4560
28	3.1	---	2.3	3.6	---	3.5	155	---	3350
29	5.5	---	8.1	5.2	---	7.5	155	---	3390
30	9.9	---	27	---	---	---	113	---	1800
31	6.1	---	10	---	---	---	319	---	15800
TOTAL	220.82	---	1013.34	143.7	---	205.5	6029.9	---	524375

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	80	---	910	412	---	22400	30	340	28
2	85	---	1060	741	36900	73800	28	295	22
3	92	5110	1270	958	---	81600	44	2590	547
4	129	---	2600	645	17000	29600	36	1870	182
5	193	---	5950	453	---	13200	33	570	51
6	248	---	10000	343	---	6770	30	490	37
7	337	---	18700	290	---	4310	26	---	35
8	315	---	16100	240	---	2600	24	---	29
9	331	---	17600	204	---	1630	30	---	132
10	282	---	12500	180	---	1090	37	8300	340
11	249	---	9650	149	1720	692	43	7400	640
12	212	---	6830	138	1470	548	27	4000	243
13	150	---	3290	111	1380	414	23	4000	182
14	120	---	2040	97	970	254	104	15800	4440
15	112	---	1750	122	1720	567	48	---	731
16	117	---	1910	123	2590	860	33	---	302
17	132	---	2430	149	---	1200	21	---	105
18	147	---	3000	166	---	1350	15	---	46
19	162	---	3630	146	---	961	12	---	25
20	193	---	5150	103	---	430	11	---	19
21	190	---	4990	85	1150	264	9.8	515	14
22	182	---	4500	83	1070	240	8.4	360	8.2
23	167	---	3720	79	1410	301	7.7	230	4.8
24	134	---	2320	123	2880	956	7.1	162	3.1
25	144	---	2690	119	2620	842	5.4	182	2.6
26	100	---	1240	101	1720	469	3.0	210	1.7
27	30	---	100	81	1690	370	1.2	175	.57
28	81	---	782	64	1290	223	.59	250	.40
29	205	---	5320	49	715	95	.40	150	.16
30	254	---	8310	40	495	53	.30	---	.03
31	---	---	---	35	425	40	---	---	---
TOTAL	5173	---	160342	6629	---	248129	698.89	---	8171.56
		JULY			AUGUST			SEPTEMBER	
1	.60	---	.11	27	45000	3280	.01	---	.00
2	.50	59	.08	16	---	967	.01	---	.00
3	.34	---	.04	119	---	53200	.01	---	.00
4	.41	---	.06	32	---	2680	.01	370	.01
5	.16	---	.01	15	---	422	.00	---	.00
6	.07	---	.00	9.5	4370	112	.00	---	.00
7	.03	---	.00	5.8	2790	44	.00	---	.00
8	.03	---	.00	3.2	---	10	.00	---	.00
9	.28	40	.03	1.7	---	2.6	.00	---	.00
10	6.9	1340	25	.42	---	.13	.00	---	.00
11	20	---	237	.02	---	.01	.00	---	.00
12	15	3210	130	.01	---	.00	.00	---	.00
13	7.9	1500	32	.01	---	.00	.00	---	.00
14	5.0	400	5.4	.01	---	.00	.00	---	.00
15	1.5	---	1.1	.01	---	.00	.00	---	.00
16	.42	---	.07	1.7	---	4.5	.00	---	.00
17	.12	---	.01	3.9	---	6.1	.00	---	.00
18	.10	---	.00	1.5	---	.70	.00	---	.00
19	.10	---	.00	1.5	---	.57	.00	---	.00
20	.08	---	.00	.29	---	.01	.00	---	.00
21	.10	---	.00	.03	---	.00	.00	---	.00
22	.16	---	.01	.02	---	.00	.00	---	.00
23	.16	---	.01	.01	---	.00	.00	---	.00
24	.16	---	.01	.01	---	.00	.01	---	.00
25	.06	---	.00	.01	---	.00	.02	---	.00
26	.06	---	.00	.01	---	.00	.35	---	.20
27	.10	---	.00	.01	---	.00	.03	160	.01
28	.10	---	.00	.01	---	.00	.06	---	.04
29	.90	---	.38	.01	---	.00	.03	---	.00
30	.71	11300	22	.01	---	.00	.03	---	.00
31	42	45000	10100	.01	---	.00	---	---	---
TOTAL	104.05	---	10553.32	238.71	---	60729.62	0.57	---	0.26
YEAR	19633.38		1016444.42						

06313400 SALT CREEK NEAR SUSSEX, WY

LOCATION.--Lat 43°37'19", long 106°22'04", in NE¼NE¼SE¼ sec.8, T.42 N., R.79 W., Johnson County, Hydrologic Unit 10090204, on left bank 200 ft upstream from bridge on West Sussex Dugout oil field road, 6.3 mi southwest of Sussex, and 12.6 mi upstream from mouth.

DRAINAGE AREA.--769 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to September 1981, October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft, from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation by Lower Salt Creek Reservoir, capacity, 2,710 acre-ft.

AVERAGE DISCHARGE.--7 years (water years 1977 to 1981, 1983-84), 50.8 ft^3/s, 36,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s, May 18, 1978, gage height, 9.88 ft, from floodmark, from rating curve extended above 2,300 ft^3/s on basis of slope-area measurement of peak flow; minimum daily discharge, 12 ft^3/s Aug. 21-25, Sept. 5, 6, 17, 18, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 28	0900	ice jam	*4.10
May 3	0400	*740	3.59

Minimum daily discharge, 15 ft^3/s, Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	31	20	33	37	51	78	376	35	35	39	30
2	36	31	19	32	38	58	73	512	41	34	98	31
3	34	33	20	33	40	71	71	599	40	30	60	31
4	36	36	22	34	42	69	76	460	38	31	41	31
5	37	38	20	35	46	64	80	342	40	30	36	29
6	35	40	20	39	49	67	87	278	41	29	34	28
7	34	38	21	48	49	72	122	244	39	28	31	27
8	35	45	24	45	50	73	103	210	48	28	27	28
9	34	42	28	42	50	74	102	186	45	32	28	30
10	34	37	34	39	53	78	98	184	43	37	28	31
11	34	35	38	35	56	82	87	127	46	37	28	32
12	34	39	43	34	54	103	95	105	43	31	28	35
13	34	36	42	32	58	147	102	96	40	30	30	30
14	33	36	41	31	61	253	85	83	37	30	29	30
15	36	34	39	30	59	359	78	72	38	31	35	31
16	33	34	36	29	58	275	77	64	42	32	42	32
17	33	34	35	27	56	161	80	56	37	31	36	32
18	34	34	32	26	54	152	89	52	56	32	31	33
19	62	34	30	25	51	140	94	48	43	31	29	33
20	40	33	28	24	49	150	105	45	38	32	32	32
21	33	33	26	25	52	145	98	44	36	32	36	31
22	31	32	25	26	54	192	73	48	34	33	33	32
23	31	28	24	27	53	152	71	46	33	37	29	30
24	32	33	23	28	51	145	66	43	33	34	28	35
25	32	36	25	30	50	170	75	57	33	33	29	39
26	29	15	27	33	50	152	78	54	33	33	29	37
27	30	16	28	34	49	122	49	50	32	33	29	37
28	31	22	28	35	48	111	73	47	32	33	28	39
29	32	20	29	36	47	101	66	43	34	32	26	37
30	31	18	31	37	---	93	162	40	32	32	28	38
31	30	---	33	36	---	86	---	37	---	65	29	---
TOTAL	1065	973	891	1020	1464	3968	2593	4648	1162	1028	1066	971
MEAN	34.4	32.4	28.7	32.9	50.5	128	86.4	150	38.7	33.2	34.4	32.4
MAX	62	45	43	48	61	359	162	599	56	65	98	39
MIN	29	15	19	24	37	51	49	37	32	28	26	27
AC-FT	2110	1930	1770	2020	2900	7870	5140	9220	2300	2040	2110	1930

CAL YR 1983 TOTAL 15986 MEAN 43.8 MAX 286 MIN 15 AC-FT 31710
WTR YR 1984 TOTAL 20849 MEAN 57.0 MAX 599 MIN 15 AC-FT 41350

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1952, 1968 to 1981, October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
NOV											
10...	1430	37	6040	3.5	300	55	39	1300	34	14	745
DEC											
29...	1420	30	--	--	--	--	--	--	--	--	--
JAN											
05...	1200	24	5850	.0	250	50	30	1300	37	14	798
26...	1150	E33	--	.0	--	--	--	--	--	--	--
FEB											
09...	1045	44	--	.0	--	--	--	--	--	--	--
MAR											
14...	1130	232	3250	5.5	380	78	45	620	14	8.4	308
APR											
05...	1030	95	--	8.0	--	--	--	--	--	--	--
MAY											
03...	1030	652	2880	8.5	580	110	74	430	8	9.6	166
25...	1000	60	--	10.0	--	--	--	--	--	--	--
JUL											
05...	1030	28	--	21.0	--	--	--	--	--	--	--
AUG											
02...	1100	139	--	23.0	--	--	--	--	--	--	--
SEP											
06...	1055	26	--	18.5	--	--	--	--	--	--	--

E-Estimate.

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV											
10...	800	1200	2.3	26	4000	3900	5.4	400	.11	412	41
DEC											
29...	--	--	--	--	--	--	--	--	--	391	32
JAN											
05...	610	1200	2.3	23	3650	3700	5.0	237	<.10	216	14
26...	--	--	--	--	--	--	--	--	--	275	--
FEB											
09...	--	--	--	--	--	--	--	--	--	505	60
MAR											
14...	900	340	1.0	8.9	2170	2200	3.0	1360	.30	12200	7640
APR											
05...	--	--	--	--	--	--	--	--	--	3720	954
MAY											
03...	1200	110	.50	4.2	2100	2000	2.9	3700	.43	18000	31700
25...	--	--	--	--	--	--	--	--	--	658	107
JUL											
05...	--	--	--	--	--	--	--	--	--	184	14
AUG											
02...	--	--	--	--	--	--	--	--	--	14700	5520
SEP											
06...	--	--	--	--	--	--	--	--	--	175	12

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
JAN					
05...	1200	50	60	--	74
MAR					
14...	1130	--	37	37	39
MAY					
03...	1030	--	41	46	57
AUG					
02...	1100	--	50	69	80

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
SEP											
06...	1055	1	3	9	16	24	30	37	47	62	80

06313500 POWDER RIVER AT SUSSEX, WY

LOCATION.--Lat 43°41'44", long 106°18'24", in SW¼SW¼NW¼ sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, on left bank, 0.5 mi upstream from bridge on State Highway 192, 0.6 mi west of Sussex, and 2.7 mi downstream from Salt Creek. Prior to Apr. 8, 1983, at site 0.5 mi downstream.

DRAINAGE AREA.--3,090 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to June 1940, February 1950 to September 1957, October 1977 to September 1984 (discontinued).

REVISED RECORDS.--WDR WY-80-1: 1979(M), 1979.

GAGE.--Water-stage recorder. Altitude of gage is 4,370 ft, from topographic map. Prior to June 30, 1940, nonrecording gage about 500 ft downstream from State Highway 192 at datum 4,363.23 ft, National Geodetic Vertical Datum of 1929. Feb. 8, 1950, to Sept. 30, 1957, water-stage recorder about 600 ft downstream from State Highway 192 at datum 4,362.16 ft. October 1977 to Apr. 8, 1983, water-stage recorder 10 ft downstream from State Highway 192 at datum 4,362.95 ft.

REMARKS.--Records fair except those for winter period and period of no gage-height record, Feb. 11 to Mar. 14, which are poor. Numerous small reservoirs and diversions for irrigation of about 17,000 acres above station.

AVERAGE DISCHARGE.--15 years (water years 1939, 1951-57, 1978-84), 200 ft³/s, 144,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s, May 23, 1952, elevation, 4,374.76 ft, from floodmarks, site then in use, from rating curve extended above 1,500 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft³/s, Aug. 25, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached an elevation of 4,375.75 ft at site about 600 ft downstream from State Highway 192, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 15	0500	*2,400	*5.99	May 21	2030	2,360	5.92
May 3	1830	2,300	5.92				

Minimum daily discharge, 39 ft³/s, Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	128	93	126	185	220	400	720	920	166	135	46
2	70	129	96	128	200	212	380	1570	777	200	152	46
3	81	126	99	132	202	198	380	1850	686	170	265	46
4	109	125	102	140	202	180	380	1400	789	155	212	44
5	87	125	95	162	201	170	451	1110	679	151	142	42
6	96	128	94	180	200	182	465	900	639	141	98	41
7	95	128	102	220	198	188	581	775	627	133	80	39
8	96	172	109	188	193	204	598	635	564	128	64	40
9	95	177	116	163	200	229	531	569	570	131	55	41
10	95	170	126	151	214	245	526	562	570	170	53	40
11	100	177	133	145	208	362	427	558	634	173	48	42
12	105	209	129	140	210	490	405	553	774	141	48	50
13	108	195	121	132	220	642	366	563	660	108	47	64
14	108	179	111	127	202	900	318	614	644	102	47	71
15	122	170	101	120	193	1590	286	742	552	92	50	72
16	127	170	90	113	200	968	286	1100	558	89	69	76
17	122	173	81	104	194	810	311	1760	529	87	68	78
18	128	170	72	97	168	710	346	1920	529	87	57	75
19	171	172	68	100	170	640	354	1670	483	82	62	57
20	154	163	77	103	182	520	409	1700	443	80	64	54
21	143	166	86	108	196	518	405	1930	385	72	74	53
22	138	141	90	112	200	570	304	2200	338	68	70	60
23	133	110	85	116	187	730	289	1650	321	74	58	76
24	144	120	87	120	188	530	275	1680	270	92	49	90
25	156	130	91	124	190	540	296	1920	239	80	46	107
26	134	114	97	130	180	630	322	1300	226	69	42	114
27	129	98	105	138	180	600	204	1090	208	68	41	119
28	129	103	110	144	195	480	215	1080	200	68	42	128
29	128	96	114	156	200	440	379	930	184	66	41	130
30	130	87	115	163	---	445	500	909	172	66	41	123
31	128	---	122	174	---	390	---	933	---	95	43	---
TOTAL	3627	4351	3117	4256	5658	15533	11389	36893	15170	3404	2363	2064
MEAN	117	145	101	137	195	501	380	1190	506	110	76.2	68.8
MAX	171	209	133	220	220	1590	598	2200	920	200	265	130
MIN	66	87	68	97	168	170	204	553	172	66	41	39
AC-FT	7190	8630	6180	8440	11220	30810	22590	73180	30090	6750	4690	4090

CAL YR 1983 TOTAL 96027 MEAN 263 MAX 1550 MIN 35 AC-FT 190500

WTR YR 1984 TOTAL 107825 MEAN 295 MAX 2200 MIN 39 AC-FT 213900

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples taken 0.1 mi downstream from discharge station.

PERIOD OF RECORD.--Water years 1949-53, 1967-68, 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1983 to September 1984 (discontinued).
WATER TEMPERATURE: October 1982 to September 1984 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: May 1983 to September 1984 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,330 micromhos, Aug. 2, 1984; minimum, 600 micromhos, Nov. 18, 1983.
WATER TEMPERATURE: Maximum, 38.0°C, July 17, 31, 1984; minimum, 0.0°C, several days each year during winter.
SEDIMENT CONCENTRATION: Maximum daily, 111,000 mg/L, Aug. 5, 1983; minimum daily observed, 138 mg/L, July 9, 1984, but may have been less during missing record in December 1983.
SEDIMENT LOADS: Maixmum daily, 282,000 tons, Aug. 5, 1983; minimum dialy, 21 tons, Dec. 19, 1983, from sediment transport curve.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,330 micromhos, Aug. 2; minimum daily, 600 micromhos, Nov. 18.
WATER TEMPERATURE: Maximum, 38.0°C, July 17, 31; minimum, 0.0°C, several days during winter.
SEDIMENT CONCENTRATION: Maximum daily mean, 39,400 mg/L, Mar. 15; minimum daily mean observed, 138 mg/L, July 9, but may have been less during missing record in December.
SEDIMENT LOADS: Maximum daily mean, 169,000 tons, Mar. 15; minimum daily mean, 21 tons, Dec. 19, from sediment transport curve.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV										
10...	1730	170	2250	2.5	450	110	43	370	8	5.3
JAN										
05...	1530	161	2190	.0	400	94	39	350	8	5.4
26...	1315	E130	2350	.0	420	100	41	370	8	5.7
MAR										
14...	1500	807	2340	7.5	--	--	--	330	--	--
APR										
05...	1415	474	3200	11.0	660	150	69	460	8	6.9
MAY										
02...	1530	1820	2650	9.5	600	140	62	350	6	6.6
15...	1200	608	1820	17.5	450	100	48	240	5	4.7
25...	1400	1830	777	9.5	200	51	17	85	3	3.0
JUL										
05...	1330	153	2310	25.0	370	86	38	370	9	6.0
AUG										
02...	1440	210	5360	29.0	570	120	65	1200	23	15
SEP										
06...	1600	42	5530	19.0	350	61	49	1200	28	15

E-Estimate.

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV										
10...	288	560	270	.70	10	1530	1500	2.1	702	.56
JAN										
05...	317	400	290	.70	13	1370	1400	1.9	596	.43
26...	350	440	310	.80	14	1480	1500	2.0	--	.52
MAR										
14...	190	810	160	.70	8.1	1650	--	2.2	3600	1.0
APR										
05...	232	1200	180	.80	10	2330	2200	3.2	2980	.67
MAY										
02...	136	1200	55	.70	6.6	1930	1900	2.6	9480	.92
15...	172	630	94	.50	8.8	1260	1200	1.7	2070	.45
25...	96	200	38	.30	8.5	464	460	.63	--	.42
JUL										
05...	272	460	310	.70	11	1440	1400	2.0	595	<.10
AUG										
02...	422	1100	830	1.6	11	3430	3600	4.7	1940	2.3
SEP										
06...	570	790	1100	2.0	22	3440	3600	4.7	390	<.10

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAY				
04...	1100	40	49	59
AUG				
02...	1440	51	60	63

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
SEP									
06...	1600	0	2	25	52	68	77	84	93

SPECIFIC CONDUCTANCE, LABORATORY (MICROMHOS/CM AT 25 D, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3000	2600	---	---	2000	2500	3000	3130	722	1850	6220	5170
2	3400	2600	---	---	2000	2500	3110	2810	859	1810	6330	5080
3	3200	2600	---	---	2000	2500	3360	2460	968	1920	5400	5110
4	3200	2600	---	---	2000	2500	2930	2410	1010	2240	2030	5010
5	2500	2800	---	2000	2000	2500	2950	2600	1030	2200	3000	5120
6	2400	2800	---	---	2000	2500	2940	2680	1060	2400	3590	5680
7	2800	2600	---	---	2200	2800	2970	2790	1240	2400	3550	5570
8	2600	3000	---	---	2200	2800	2810	2970	1260	2600	3880	5550
9	2800	2400	---	---	2200	2800	2830	3050	1220	2570	4740	5680
10	3000	2200	---	---	2200	2800	2790	3040	1230	2720	4780	5720
11	3000	2400	---	---	2200	3020	2780	2740	1150	2630	4710	4670
12	2600	2400	---	---	2400	2680	3010	2740	1330	3500	5070	4640
13	2600	2400	---	---	2400	2680	3420	2580	1160	3490	5180	3480
14	1100	2000	---	---	2400	2320	3180	2080	1180	3260	4720	3360
15	1000	1000	---	---	2400	2050	3220	1700	1380	3400	4770	3360
16	2000	730	---	---	2400	2050	3200	1300	1380	3360	4980	3330
17	2200	620	---	---	2400	2260	3220	925	1670	3330	3870	3370
18	2400	600	---	---	2400	2530	3140	876	1700	3410	3870	3330
19	2800	2300	---	---	2400	2670	2780	795	1340	3610	3840	4370
20	2400	2100	---	---	2400	2700	2730	717	1400	3590	4070	4360
21	2600	1900	---	---	2400	2800	2720	690	1450	3920	4020	4430
22	2600	1800	---	---	2400	2640	2710	685	1470	4000	3780	4000
23	2600	3000	---	---	2400	2610	2800	723	1610	4100	4630	3330
24	2800	1500	---	---	2500	2870	2720	744	1550	4050	4610	3200
25	2400	760	---	---	2400	2710	1680	787	1720	3970	5040	2960
26	2400	---	---	2500	2500	2720	1700	907	1720	3030	5620	2600
27	2800	---	---	---	2500	2720	1680	882	1780	3780	5610	2570
28	2600	---	---	---	2500	3040	3860	898	1900	3830	5600	2620
29	2400	---	---	---	2500	3000	2640	870	2010	4050	5080	2640
30	2600	---	2200	---	---	3000	3010	820	1980	4060	5270	2640
31	3000	---	---	2000	---	3200	---	715	---	4210	5160	---
MEAN	2570	2070	2200	2170	2300	2660	2860	1710	1380	3200	4610	4100
MAX	3400	3000	2200	2500	2500	3200	3860	3130	2010	4210	6330	5720
MIN	1000	600	2200	2000	2000	2050	1680	685	722	1810	2030	2570

WTR YR 1984 MEAN 2760 MAX 6330 MIN 600

06313500 POWDER RIVER AT SUSSEX, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	12.0	---	---	.0	1.0	4.0	8.0	15.5	24.0	34.0	25.0
2	11.0	13.0	---	---	.0	1.0	4.0	11.0	17.5	26.0	25.0	24.0
3	10.5	14.0	---	---	.0	1.0	8.0	10.0	15.5	23.0	28.0	27.0
4	13.0	13.0	---	---	.0	1.0	8.0	11.0	16.0	34.0	32.0	29.0
5	13.5	10.0	---	.0	.0	1.0	7.0	10.0	16.5	35.0	27.0	24.0
6	15.0	12.0	---	---	.0	1.0	7.0	10.0	14.0	36.0	28.0	25.0
7	11.0	6.5	---	---	.0	1.0	7.0	12.0	15.0	26.0	29.0	24.0
8	12.0	7.5	---	---	.0	1.0	8.0	15.0	13.0	25.0	30.0	20.0
9	11.0	5.0	---	---	.0	.0	8.0	16.0	13.0	22.0	35.0	25.0
10	10.5	5.5	---	---	.0	2.0	10.0	14.0	15.0	28.0	30.0	22.0
11	10.0	9.0	---	---	.0	2.0	5.0	17.0	16.0	30.0	29.0	24.0
12	12.0	8.5	---	---	.0	3.0	9.0	20.0	16.0	35.0	30.0	20.0
13	12.0	7.0	---	---	.0	3.0	8.0	20.0	17.0	25.0	29.0	22.0
14	10.0	6.5	---	---	.0	5.5	12.0	20.0	21.0	28.0	28.0	20.0
15	10.0	6.0	---	---	.0	3.5	15.0	17.0	19.5	30.0	27.0	27.0
16	10.5	6.0	---	---	.0	3.0	17.0	16.0	20.5	35.0	26.0	23.0
17	11.0	7.0	---	---	.0	4.0	17.0	13.0	24.0	38.0	25.0	26.0
18	11.0	7.0	---	---	.0	5.5	15.0	13.0	25.0	36.0	30.0	28.0
19	10.5	6.5	---	---	.0	7.0	7.0	17.5	24.0	29.0	27.0	20.0
20	10.0	5.5	---	---	.0	8.0	10.0	12.0	23.0	27.0	26.0	24.0
21	13.0	4.5	---	---	1.0	9.0	14.0	14.5	25.0	33.0	29.0	14.0
22	13.0	3.0	---	---	1.0	9.0	14.0	12.0	25.0	32.0	25.0	12.0
23	15.0	4.0	---	---	1.0	9.0	11.0	13.5	26.0	31.0	30.0	5.0
24	11.5	3.0	---	---	1.0	9.0	14.0	11.0	28.0	30.0	28.0	6.0
25	10.0	2.0	---	---	1.0	9.0	.0	9.5	29.0	27.0	27.0	12.0
26	12.0	---	---	.0	1.0	9.0	.0	13.0	29.0	33.0	28.0	5.0
27	12.0	---	---	---	1.0	9.0	1.0	12.0	25.0	29.0	30.0	7.0
28	11.0	---	---	---	1.0	8.0	2.0	15.0	30.0	32.0	24.0	12.0
29	10.5	---	---	---	1.0	8.0	4.0	19.0	30.0	34.0	26.0	15.0
30	10.0	---	.5	---	---	8.0	8.0	21.5	20.0	32.0	28.0	16.0
31	12.0	---	---	.0	---	10.0	---	17.5	---	38.0	24.0	---
MEAN	11.5	7.5	.5	.0	.5	5.0	8.5	14.0	21.0	30.5	28.0	19.5
MAX	17.0	14.0	.5	.0	1.0	10.0	17.0	21.5	30.0	38.0	35.0	29.0
MIN	10.0	2.0	.5	.0	.0	.0	.0	8.0	13.0	22.0	24.0	5.0

WTR YR 1984 MEAN 14.5 MAX 38.0 MIN .0

06313500 POWDER RIVER AT SUSSEX, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	66	544	97	128	656	227	93		78
2	70	712	135	129	776	270	96		70
3	81	968	212	126	768	261	99		68
4	109	1310	386	125	512	173	102		65
5	87	984	231	125	544	184	95		52
6	96	832	216	128	824	285	94		46
7	95	608	156	128	1020	353	102		55
8	96	608	158	172	1300	604	109		65
9	95	592	152	177	1010	483	116		75
10	95	496	127	170	1130	519	126		91
11	100	536	145	177	1080	516	133		104
12	105	624	177	209	2730	1540	129		97
13	108	576	168	195	2040	1070	121		83
14	108	376	110	179	1150	556	111		68
15	122	688	227	170	936	430	101		54
16	127	976	335	170	952	437	90		41
17	122	584	192	173	704	328	81		32
18	128	696	241	170	640	294	72		24
19	171	2150	993	172	904	420	68		21
20	154	2530	1050	163	1060	467	77		28
21	143	1610	622	166	936	420	86		37
22	138	1460	544	141	784	298	90		41
23	133	1340	481	110	1090	324	85		36
24	144	1490	579	120	1200	389	87		38
25	156	1890	796	130	1340	470	91		42
26	134	1660	601	114	---	339	97		49
27	129	1220	425	98	---	207	105		59
28	129	568	198	103	---	200	110		66
29	128	544	188	96	---	141	114		72
30	130	704	247	87	---	89	115		73
31	128	920	318	---	---	---	122		85
TOTAL	3627	---	10507	4351	---	12294	3117		1815
		JANUARY			FEBRUARY			MARCH	
1	126	---	91	185	315	157	220	1870	1110
2	128	---	95	200	315	170	212	2460	1410
3	132	---	102	202	315	172	198	2820	1510
4	140	---	117	202	294	160	180	2940	1430
5	162	---	166	201	368	200	170	2860	1310
6	180	---	214	200	388	210	182	2440	1200
7	220	---	345	198	368	197	188	1700	863
8	188	---	237	193	441	230	204	2180	1200
9	163	---	169	200	483	261	229	1130	699
10	151	---	141	214	452	262	245	2560	1690
11	145	---	128	208	556	312	362	2150	2100
12	140	---	117	210	604	342	490	2970	3930
13	132	---	102	220	640	380	642	3260	5650
14	127	---	93	202	704	384	900	11900	28900
15	120	---	81	193	924	481	1590	39400	169000
16	113	---	70	200	850	459	968	16100	42100
17	104	---	58	194	682	357	810	11300	24700
18	97	---	49	168	556	252	710	4880	9350
19	100	---	53	170	614	282	640	3940	6810
20	103	---	56	182	556	273	520	4200	5900
21	108	---	63	196	656	347	518	4570	6390
22	112	---	69	200	620	335	570	6400	9850
23	116	---	75	187	604	305	730	7350	14500
24	120	---	81	188	620	315	530	5410	9740
25	124	---	85	190	651	334	540	4460	6500
26	130	---	87	180	504	245	630	4100	6970
27	138	---	94	180	598	291	600	3880	6290
28	144	---	92	195	693	365	480	2570	3330
29	156	---	89	200	1000	540	440	2150	2550
30	163	---	74	---	---	---	445	1890	2270
31	174	189	89	---	---	---	390	945	995
TOTAL	4256	---	3382	5658	---	8618	15533	---	380247

06313500 POWDER RIVER AT SUSSEX, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	400	998	1080	720	15200	29500	920	2200	5460
2	380	1310	1340	1570	25800	109000	777	1780	3730
3	380	1260	1290	1850	26000	130000	686	1230	2280
4	380	6820	7000	1400	20300	76700	789	1650	3510
5	451	7720	9400	1110	10400	31200	679	1050	1920
6	465	7530	9450	900	7980	19400	639	920	1590
7	581	8040	12600	775	6620	13800	627	833	1410
8	598	6790	11000	635	4300	7370	564	630	959
9	531	5540	7940	569	3460	5320	570	664	1020
10	526	4260	6050	562	3150	4780	570	656	1010
11	427	3280	3780	558	2260	3400	634	1130	1930
12	405	2290	2500	553	1890	2820	774	1160	2420
13	366	1520	1500	563	2420	3680	660	1460	2600
14	318	1280	1100	614	3990	6610	644	1800	3130
15	286	1050	811	742	5390	10800	552	1070	1590
16	286	914	706	1100	8720	25900	558	770	1160
17	311	630	529	1760	9890	47000	529	1280	1830
18	346	1020	953	1920	7650	39700	529	1730	2470
19	354	1260	1200	1670	6460	29100	483	977	1270
20	409	1600	1770	1700	6100	28000	443	971	1160
21	405	1740	1900	1930	6100	31800	385	914	950
22	304	1470	1210	2200	5940	35300	338	540	493
23	289	1720	1340	1650	4700	20900	321	724	627
24	275	1700	1260	1680	6260	28400	270	644	469
25	296	840	671	1920	4870	25200	239	414	267
26	322	766	666	1300	3370	11800	226	299	182
27	204	672	370	1090	2630	7740	208	677	380
28	215	4310	2500	1080	2520	7350	200	574	310
29	379	5780	5910	930	2360	5930	184	358	178
30	500	5140	6940	909	2460	6040	172	192	89
31	---	---	---	933	2480	6250	---	---	---
TOTAL	11389	---	104766	36893	---	810790	15170	---	46394
		JULY			AUGUST			SEPTEMBER	
1	166	166	74	135	3540	1290	46	966	120
2	200	220	119	152	6540	2680	46	882	110
3	170	186	85	265	24500	17500	46	816	101
4	155	470	197	212	17200	9850	44	666	79
5	151	408	166	142	8940	3430	42	480	54
6	141	282	107	98	1320	349	41	450	50
7	133	258	93	80	702	152	39	432	45
8	128	150	52	64	552	95	40	402	43
9	131	138	49	55	312	46	41	516	57
10	170	1720	789	53	360	52	40	456	49
11	173	2910	1360	48	336	44	42	528	60
12	141	2630	1000	48	888	116	50	720	97
13	108	2040	595	47	612	78	64	570	98
14	102	624	172	47	1260	160	71	522	100
15	92	198	49	50	780	106	72	408	79
16	89	516	124	69	2010	374	76	564	116
17	87	894	210	68	1290	237	78	1210	255
18	87	1070	251	57	900	138	75	2060	417
19	82	408	90	62	756	127	57	1430	220
20	80	360	78	64	744	129	54	438	64
21	72	744	145	74	720	144	53	180	26
22	68	---	154	70	720	136	60	210	34
23	74	---	838	58	558	87	76	258	53
24	92	4010	996	49	408	54	90	180	44
25	80	3870	836	46	378	47	107	414	120
26	69	1260	235	42	480	54	114	312	96
27	68	540	99	41	708	78	119	342	110
28	68	1020	187	42	672	76	128	354	122
29	66	1020	182	41	570	63	130	780	274
30	66	450	80	41	1100	122	123	1430	475
31	95	1860	477	43	870	101	---	---	---
TOTAL	3404	---	9889	2363	---	37915	2064	---	3568
YEAR	107825		1430185						

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°12'54", long 106°06'41", in NW¼SE¼SW¼ sec.15, T.49 N., R.77 W., Johnson County, Hydrologic Unit 10090202, on right bank 250 ft downstream from bridge on dirt road, 0.8 mi upstream from Interstate Highway 90, 5.3 mi upstream from mouth, and 31 mi east of Buffalo.

DRAINAGE AREA.--151 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1958-71. October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,970 ft, from topographic map. Oct. 1, 1958, to Sept. 30, 1971 crest-stage gage at site 250 ft upstream at present datum. Nov. 24, 1971, to July 15, 1976, water-stage recorder at site 0.3 mi upstream at different datum. July 16, 1976, to July 18, 1984, at site 250 ft upstream at present datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 2.70 ft^3/s, 1,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,890 ft^3/s, June 16, 1979, gage height, 11.73 ft, from floodmarks, from rating curve extended above 1,150 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 15	0230	*498	*6.86

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.00	.00	.10	.00	.28	.01	.06	.33	.09	.03
2	.00	.03	.00	.00	.20	.00	.18	.10	.02	.32	.09	.02
3	.00	.00	.00	.00	.18	.00	.13	1.6	.09	.31	.09	.02
4	.01	.00	.00	.00	.18	.00	.11	5.2	.44	.31	.09	.02
5	.00	.04	.00	.00	.17	.00	.04	4.1	.18	.31	.06	.02
6	.00	.09	.00	.00	.17	.00	.06	3.1	.09	.30	.04	.02
7	.00	.14	.00	.00	.17	.00	.09	9.7	.11	.30	.03	.03
8	.00	.31	.00	.00	.16	.00	.05	10	.12	.29	.03	.03
9	.00	.18	.00	.00	.14	.01	.01	12	.10	.29	.03	.03
10	.00	.04	.00	.00	.15	.03	.01	22	.12	.28	.03	.03
11	.00	.12	.00	.00	.16	.06	.09	15	.09	.26	.02	.02
12	.00	.09	.00	.00	.19	.14	.01	10	.09	.24	.02	.01
13	.00	.04	.00	.00	.22	.32	.01	9.5	2.2	.22	.02	.00
14	.00	.00	.00	.00	.18	.43	.01	11	13	.20	.02	.00
15	.00	.00	.00	.00	.18	.25	.01	11	78	.18	.02	.00
16	.00	.00	.00	.00	.12	.17	.02	7.5	7.4	.17	.02	.00
17	.00	.00	.00	.00	.09	.13	.02	2.0	1.4	.16	.02	.00
18	.00	.02	.00	.00	.07	.11	.00	.53	.70	.15	.02	.00
19	.00	.00	.00	.03	.08	.09	.00	.40	.66	.15	.02	.00
20	.00	.13	.00	.01	.07	.08	.00	.09	.62	.15	.02	.00
21	.00	.04	.00	.00	.06	.07	.01	.44	.58	.15	.01	.00
22	.00	.00	.00	.00	.05	.07	.00	.31	.54	.15	.01	.05
23	.00	.00	.00	.00	.04	.06	.00	.07	.48	.09	.01	.09
24	.02	.00	.00	.00	.03	.06	.00	.26	.46	.09	.01	.11
25	.00	.00	.00	.00	.02	.05	.10	.55	.42	.09	.01	.09
26	.00	.00	.01	.00	.01	.05	.02	.31	.40	.09	.01	.09
27	.00	.00	.01	.00	.00	.05	.02	.09	.38	.09	.02	.09
28	.09	.00	.01	.01	.00	.04	.02	.02	.37	.09	.02	.06
29	.02	.00	.01	.02	.00	.04	.02	.02	.36	.08	.02	.03
30	.04	.00	.00	.03	---	.01	.01	.02	.35	.06	.02	.03
31	.04	---	.00	.04	---	.44	---	.04	---	.06	.02	---
TOTAL	.22	1.31	.04	.14	3.19	2.76	1.33	136.96	109.83	5.96	.94	.92
MEAN	.007	.044	.001	.005	.11	.089	.044	4.42	3.66	.19	.030	.031
MAX	.09	.31	.01	.04	.22	.44	.28	22	78	.33	.09	.11
MIN	.00	.00	.00	.00	.00	.00	.00	.01	.02	.06	.01	.00
AC-FT	.4	2.6	.08	.3	6.3	5.5	2.6	272	218	12	1.9	1.8

CAL YR 1983 TOTAL 180.03 MEAN .49 MAX 42 MIN .00 AC-FT 357
WTR YR 1984 TOTAL 263.60 MEAN .72 MAX 78 MIN .00 AC-FT 523

06313950 NORTH FORK CRAZY WOMAN CREEK BELOW POLE CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°11'11", long 106°51'12", in NW¼NE¼SW¼ sec.28, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, Bighorn National Forest, on right bank 8 ft upstream from bridge, 0.7 mi upstream from forest boundary, 3.4 mi downstream from Pole Creek, and 13 mi southwest of Buffalo.

DRAINAGE AREA.--43.4 mi^2.

PERIOD OF RECORD.--October 1973 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft, from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, Oct. 23 to Nov. 28, which are poor. No diversion above station.

AVERAGE DISCHARGE.--11 years, 25.5 ft^3/s, 18,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 724 ft^3/s, May 16, 1984, gage height, 5.06 ft; minimum daily, 1.2 ft^3/s Jan. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	1645	*724	*5.06	June 11	0330	414	4.41
May 31	2345	248	4.01	June 15	0545	280	4.09

Minimum daily discharge, 3.8 ft^3/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	7.0	5.7	5.0	4.7	4.3	5.0	8.1	196	91	35	12
2	11	7.0	5.7	5.0	4.7	4.3	4.9	7.5	147	67	46	12
3	11	7.2	5.8	5.2	4.7	4.3	4.7	7.5	176	62	35	12
4	10	6.9	6.0	5.2	4.7	4.6	4.8	7.6	169	59	29	12
5	9.5	7.0	6.0	5.2	4.7	4.4	5.2	7.5	165	53	23	11
6	8.5	7.1	6.0	5.2	4.7	4.5	5.6	7.5	144	48	21	11
7	8.5	7.0	6.0	5.2	4.6	4.3	6.3	7.2	136	46	20	9.9
8	9.5	5.8	6.0	5.2	4.5	4.3	6.3	8.2	132	48	19	10
9	11	4.7	5.9	5.2	4.5	4.5	6.9	15	130	49	18	11
10	9.5	7.2	5.8	5.2	4.4	4.5	6.2	20	126	48	18	11
11	9.6	8.5	5.8	5.1	4.3	4.5	6.0	23	240	40	17	11
12	9.6	8.4	5.8	5.0	4.3	4.5	5.6	36	145	36	17	10
13	8.7	7.2	5.8	5.0	4.3	4.5	5.4	79	145	34	18	9.6
14	9.0	6.6	5.8	5.1	4.3	4.5	5.4	144	195	36	17	9.5
15	9.8	6.0	5.7	4.9	4.7	4.7	5.8	348	239	32	17	9.7
16	9.7	6.8	5.6	4.8	4.4	4.7	8.2	432	189	31	17	11
17	8.7	6.6	5.4	4.8	4.4	4.6	12	242	178	29	22	10
18	9.1	6.8	5.1	4.7	4.4	4.7	14	187	161	28	22	9.8
19	9.2	5.3	5.0	4.5	4.4	4.7	18	209	146	28	20	9.8
20	9.5	5.3	5.0	4.4	4.6	4.8	15	245	140	28	43	9.8
21	8.9	6.0	4.8	4.3	4.5	4.8	14	229	134	26	24	10
22	7.9	5.6	4.5	4.3	4.5	5.1	13	164	128	32	19	12
23	8.2	5.4	3.8	4.3	4.4	5.1	12	180	113	39	17	15
24	8.2	5.7	4.1	4.3	4.4	5.5	12	216	104	30	16	15
25	8.2	6.2	4.3	4.6	4.5	5.5	11	162	100	46	15	13
26	8.6	6.4	4.4	4.7	4.5	5.1	8.0	156	96	60	15	14
27	8.2	6.2	4.5	4.7	4.4	5.0	8.2	164	87	32	13	15
28	7.4	6.0	4.6	4.7	4.3	4.8	9.7	142	82	26	13	12
29	7.0	6.1	4.7	4.7	4.3	4.7	8.8	153	77	25	12	13
30	7.0	6.1	4.8	4.7	---	5.0	8.5	181	87	26	12	14
31	7.5	---	4.8	4.7	---	5.1	---	214	---	27	12	---
TOTAL	276.5	194.1	163.2	149.9	130.1	145.9	256.5	4002.1	4307	1262	642	345.1
MEAN	8.92	6.47	5.26	4.84	4.49	4.71	8.55	129	144	40.7	20.7	11.5
MAX	11	8.5	6.0	5.2	4.7	5.5	18	432	240	91	46	15
MIN	7.0	4.7	3.8	4.3	4.3	4.3	4.7	7.2	77	25	12	9.5
AC-FT	548	385	324	297	258	289	509	7940	8540	2500	1270	685

CAL YR 1983 TOTAL 9522.7 MEAN 26.1 MAX 288 MIN 3.8 AC-FT 18890
WTR YR 1984 TOTAL 11874.4 MEAN 32.4 MAX 432 MIN 3.8 AC-FT 23550

06314000 NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°11'16", long 106°49'48", in SW¼SW¼NE¼ sec.27, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, on left bank, 70 ft upstream from bridge on county road, 2.1 mi upstream from Spring Draw, and 13 mi southwest of Buffalo.

DRAINAGE AREA.--44.9 mi^2.

PERIOD OF RECORD.--April 1942 to September 1949, October 1973 to September 1984 (discontinued). Prior to October 1944, monthly discharge only published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft, from topographic map. Apr. 1, 1942, to Sept. 23, 1943, nonrecording gage nearby at different datum. Sept. 24, 1943, to Sept. 30, 1949, water-stage recorder at datum 1.33 ft lower.

REMARKS.--Records good. No diversion above station.

AVERAGE DISCHARGE.--18 years (water years 1943-49, 1974-84), 25.4 ft^3/s, 18,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 742 ft^3/s, May 16, 1984, gage height, 3.97 ft; maximum gage height, 4.23 ft, June 6, 1949, present datum; minimum daily discharge, 1.7 ft^3/s, Jan. 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	1800	*742	*3.97	June 11	0430	343	3.32
June 3	2230	253	3.06	June 15	0630	272	3.12

Minimum daily discharge, 4.1 ft^3/s, Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	7.7	6.3	5.2	4.9	4.7	4.5	7.2	202	88	40	12
2	9.6	7.9	6.3	5.3	4.9	4.7	4.5	7.2	144	68	50	12
3	11	8.0	6.3	5.4	4.9	4.7	4.3	7.2	167	64	40	12
4	11	7.7	6.3	5.4	4.9	4.7	4.4	7.2	175	62	31	12
5	10	7.8	6.3	5.4	4.9	4.7	4.7	7.4	169	58	25	11
6	9.5	7.9	6.3	5.4	4.9	4.7	4.7	7.1	143	54	22	11
7	9.1	7.8	6.3	5.4	4.9	4.6	5.3	6.9	132	51	21	12
8	10	6.5	6.3	5.4	4.9	4.5	5.4	7.5	132	53	20	12
9	11	5.2	6.3	5.4	4.9	4.5	6.4	14	130	54	19	13
10	10	7.6	6.3	5.4	4.9	4.5	5.8	22	128	54	17	12
11	10	9.5	6.3	5.4	4.9	4.5	5.5	25	229	46	17	12
12	9.3	9.4	6.3	5.4	4.9	4.5	5.2	45	147	41	18	11
13	8.9	7.8	6.3	5.5	4.9	4.5	5.1	94	144	39	17	10
14	8.7	7.4	6.3	5.5	4.9	4.5	5.0	157	195	42	16	10
15	9.6	6.6	6.3	5.5	4.9	4.5	5.5	359	233	37	16	10
16	9.6	7.5	6.2	5.5	4.8	4.5	7.2	477	194	35	17	11
17	8.6	7.4	6.0	5.4	4.7	4.5	10	271	181	33	22	10
18	9.1	7.7	5.8	5.3	4.7	4.5	13	207	164	31	22	9.7
19	9.0	5.9	5.6	5.1	4.7	4.5	18	218	149	31	20	9.4
20	9.5	5.8	5.5	5.0	4.7	4.2	16	242	141	32	42	9.4
21	9.3	6.6	5.3	4.9	4.7	4.1	14	230	129	29	24	10
22	9.0	6.1	5.1	4.9	4.7	4.3	13	169	121	36	19	12
23	9.2	5.8	5.0	4.9	4.7	4.3	12	176	113	44	17	14
24	9.1	6.2	4.7	4.9	4.7	4.6	12	218	107	33	16	15
25	9.0	6.8	4.8	4.9	4.7	4.9	11	168	100	44	15	13
26	9.5	7.0	4.9	4.9	4.7	4.9	7.7	152	96	63	15	14
27	9.1	6.8	4.9	4.9	4.7	4.7	8.3	169	89	36	13	15
28	8.0	6.7	4.9	4.9	4.7	4.5	10	140	82	29	13	12
29	7.8	6.5	5.0	4.9	4.7	4.5	9.4	148	79	26	12	13
30	7.7	6.3	5.0	4.9	---	4.7	8.4	182	84	27	12	15
31	8.5	---	5.1	4.9	---	4.5	---	212	---	29	12	---
TOTAL	288.4	213.9	178.3	161.2	139.4	141.0	246.3	4152.7	4299	1369	660	354.5
MEAN	9.30	7.13	5.75	5.20	4.81	4.55	8.21	134	143	44.2	21.3	11.8
MAX	11	9.5	6.3	5.5	4.9	4.9	18	477	233	88	50	15
MIN	7.7	5.2	4.7	4.9	4.7	4.1	4.3	6.9	79	26	12	9.4
AC-FT	572	424	354	320	276	280	489	8240	8530	2720	1310	703

CAL YR 1983 TOTAL 9363.0 MEAN 25.7 MAX 285 MIN 4.7 AC-FT 18570
WTR YR 1984 TOTAL 12203.7 MEAN 33.3 MAX 477 MIN 4.1 AC-FT 24210

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY

LOCATION.--Lat 44°29'28", long 106°10'38", in NE¼SW¼SW¼ sec.7, T.52 N., R.77 W., Johnson County, Hydrologic Unit 10090205, 1.1 mi upstream from Jewell Draw, 5.0 mi upstream from mouth, and 11 mi south of Arvada.

DRAINAGE AREA.--945 mi², approximately.

PERIOD OF RECORD.--Water years 1967 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
12...	1330	331	16.0	<.01	<.01	<.01	<.01	<.010	.020
JUL									
13...	0825	103	21.0	<.01	<.01	<.01	<.01	<.010	.040

BEST COPY AVAILABLE

06317000 POWDER RIVER AT ARVADA, WY

LOCATION.--Lat 44°39'00", long 106°07'37", in SW¼SE¼ sec.16, T.54 N., R.77 W., Sheridan County, Hydrologic Unit 10090202, on left bank 0.1 mi downstream from bridge on county road, 0.2 mi southeast of Arvada, and 0.2 mi upstream from Wild Horse Creek.

DRAINAGE AREA.--6,050 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year (no winter records in water years 1919-30, 1934). Records for Feb. 16-23, 1930, published in WSP 701 are unreliable and should not be used.

REVISED RECORDS.--WSP 1509: 1921(M), 1923(M), 1924-26, 1927-28(M), 1929, 1930(M), 1931, 1932(M), 1933, 1934(M), 1935-36. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 3,620 ft, from topographic map. Prior to Oct. 24, 1938, nonrecording gage at bridge 0.1 mi upstream at datum 3,621.87 ft. October 24, 1938 to Apr. 27, 1983, at site 0.7 mi upstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Numerous small reservoirs and diversions for irrigation of about 29,000 acres above station.

AVERAGE DISCHARGE.--53 years (water years 1931-33, 1935-84), 282 ft^3/s, 204,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 100,000 ft^3/s, Sept. 29, 1923, gage height, 23.7 ft, from floodmarks, site and datum then in use, from rating curve extended above 20,000 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 16	1600	backwater from ice	a*6.24	May 19	0600	2,880	4.76
Mar. 17	1730	*3,380	5.28				

a-From floodmarks.

Minimum daily discharge, 14 ft^3/s, Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	127	89	106	176	221	394	536	1420	359	81	24
2	72	127	96	113	182	220	400	845	1410	343	85	18
3	74	121	106	117	190	218	385	1410	1390	350	133	14
4	81	127	109	119	195	220	378	1970	1280	364	117	27
5	85	122	99	122	199	222	385	1910	1190	344	225	36
6	98	122	100	124	203	245	422	1690	1300	309	250	36
7	113	126	103	127	210	280	452	1390	1110	276	214	39
8	127	137	110	128	216	350	491	1190	1070	269	148	30
9	122	158	121	121	220	320	563	1040	1010	266	112	30
10	117	163	129	120	229	330	508	951	936	286	103	24
11	113	166	120	119	233	320	507	906	906	244	87	21
12	107	158	110	128	240	310	476	821	906	232	72	21
13	107	168	110	137	250	295	423	765	1290	244	64	27
14	107	185	107	150	258	325	372	815	1280	250	57	24
15	123	205	100	158	264	560	357	913	1750	215	54	30
16	137	208	92	153	268	1300	315	1120	1390	179	57	42
17	142	183	84	146	268	1940	295	1540	1220	176	53	57
18	142	142	83	138	260	1210	282	2320	1100	171	57	57
19	152	117	82	128	258	740	289	2640	966	152	60	57
20	152	110	76	118	251	641	329	2280	965	137	58	57
21	158	110	68	112	246	518	377	2140	830	122	72	64
22	168	101	66	112	241	527	422	2230	738	112	68	76
23	142	72	64	118	240	577	437	2440	676	107	72	85
24	132	64	66	120	238	726	430	2140	607	103	72	85
25	132	112	70	124	230	542	490	1960	580	95	83	89
26	132	103	74	130	225	542	579	2290	524	97	76	103
27	127	103	79	138	221	636	504	1890	476	98	53	127
28	147	102	82	144	221	596	443	1520	437	88	46	152
29	127	96	86	154	221	485	351	1480	412	107	39	174
30	121	91	89	164	---	444	399	1390	385	94	37	168
31	127	---	96	172	---	445	---	1400	---	85	33	---
TOTAL	3744	3926	2866	4060	6653	16305	12455	47932	29554	6274	2738	1794
MEAN	121	131	92.5	131	229	526	415	1546	985	202	88.3	59.8
MAX	168	208	129	172	268	1940	579	2640	1750	364	250	174
MIN	60	64	64	106	176	218	282	536	385	85	33	14
AC-FT	7430	7790	5680	8050	13200	32340	24700	95070	58620	12440	5430	3560

CAL YR 1983 TOTAL 111779 MEAN 306 MAX 1620 MIN 18 AC-FT 221700
WTR YR 1984 TOTAL 138301 MEAN 378 MAX 2640 MIN 14 AC-FT 274300

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-57, 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1949 to September 1957, October 1967 to September 1978.
SUSPENDED-SEDIMENT DISCHARGE: April 1946 to September 1957, October 1967 to September 1971, January 1975 to September 1978, April 1983 to September 1984 (discontinued).

REMARKS.--Sediment loads for days when no concentration is listed are based on a sediment transport curve.

INSTRUMENTATION.--Sediment pumping sampler since April 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum observed, 35.0°C Aug. 29, 1978; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 113,000 mg/L July 19, 1954; minimum daily mean, no flow for many days most years.
SEDIMENT LOADS: Maximum daily, 2,810,000 tons, May 20, 1978; minimum daily, 0 tons on many days most years.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 30,600 mg/L, May 4.
SEDIMENT LOADS: Maximum daily, 185,000 tons, May 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
NOV 17...	1500	178	2490	4.0	490	110	52	360	7	3.7
JAN 12...	1600	128	2420	1.0	440	120	33	400	9	6.5
MAY 03...	1600	1510	2930	--	640	150	64	440	8	7.0
AUG 15...	0900	54	3060	20.0	670	160	65	460	8	8.6

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 17...	260	660	270	.50	9.9	1600	2.2	780	.40	.100
JAN 12...	310	630	260	.40	13	1600	2.2	570	.50	.010
MAY 03...	220	1200	140	.70	7.5	2100	2.9	8730	.70	.050
AUG 15...	230	930	340	.80	11	2100	2.9	308	.00	.070

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAR 30...	1100	48	57	65
JUN 04...	2030	24	27	32

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUN 04...	2030	15	84	98	100	--	--
AUG 15...	0900	0	6	64	94	99	100

06317000 POWDER RIVER AT ARVADA, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	60		368	127	---	1220	89		419
2	72		518	127	---	1220	96		478
3	74		546	121	---	1120	106		562
4	81		646	127	---	1130	109		585
5	85		707	122	---	1050	99		477
6	98		925	122	---	1050	100		474
7	113		1210	126	---	1110	103		495
8	127		1500	137	---	1300	110		545
9	122		1310	158	---	1700	121		644
10	117		1210	163	---	1800	129		706
11	113		1130	166	---	1860	120		600
12	107		1020	158	---	1700	110		502
13	107		1020	168	---	1750	110		488
14	107		1020	185	---	2090	107		456
15	123		1330	205	---	2540	100		390
16	137		1620	208	---	2610	92		323
17	142		1740	183	4150	2050	84		264
18	142		1620	142	---	1270	83		254
19	152		1840	117	---	886	82		244
20	152		1840	110	---	717	76		205
21	158		1980	110	---	717	68		160
22	168		2220	101	---	611	66		148
23	142		1620	72	---	324	64		135
24	132		1410	64	---	257	66		140
25	132		1410	112	---	720	70		150
26	132		1410	103	---	609	74		160
27	127		1220	103	---	596	79		178
28	147		1610	102	---	573	82		182
29	127		1220	96	---	506	86		190
30	121		1120	91	---	448	89		198
31	127		1220	---	---	---	96		217
TOTAL	3744		39560	3926	---	35534	2866		10969
		JANUARY			FEBRUARY			MARCH	
1	106	---	254	176		364	221	---	610
2	113	---	271	182		387	220	4430	605
3	117	---	274	190		420	218	---	698
4	119	---	274	195		441	220	---	842
5	122	---	270	199		458	222	---	964
6	124	---	269	203		475	245	---	1290
7	127	---	263	210		531	280	---	1860
8	128	---	248	216		559	350	---	3080
9	121	---	214	220		579	320	---	2820
10	120	---	194	229		624	330	---	3260
11	119	---	183	233		645	320	---	3290
12	128	553	191	240		682	310	---	3300
13	137	---	217	250		736	295	---	3240
14	150	---	257	258		781	325	---	4100
15	158	---	283	264		815	560	---	12000
16	153	---	266	268		838	1300	---	61800
17	146	---	244	268		838	1940	26200	137000
18	138	---	220	260		792	1210	---	56000
19	128	---	191	258		781	740	---	22000
20	118	---	164	251		741	641	---	16400
21	112	---	156	246		714	518	---	10900
22	112	---	156	241		687	527	---	11100
23	118	---	172	240		682	577	---	13000
24	120	---	177	238		702	726	---	19500
25	124	---	189	230		658	542	---	11100
26	130	---	206	225		631	542	---	11000
27	138	---	231	221		610	636	---	14600
28	144	---	250	221		610	596	---	12600
29	154	---	283	221		610	485	---	8460
30	164	---	319	---			444	5900	7070
31	172	---	348	---			445	---	7100
TOTAL	4060	---	7234	6653		18391	16305	---	461589

06317000 POWDER RIVER AT ARVADA, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	394		5650	536	6400	9260	1420	---	26100
2	400		5810	845	12700	29000	1410	---	25700
3	385		5410	1410	20800	79200	1390	---	24200
4	378		5230	1970	30600	163000	1280	5790	20000
5	385		5340	1910	29800	154000	1190	7300	23500
6	422		6340	1690	23200	106000	1300	8400	29500
7	452		7210	1390	---	52600	1110	5900	17700
8	491		8420	1190	---	39300	1070	5600	16200
9	563		10900	1040	---	29100	1010	5100	13900
10	508		8970	951	---	23800	936	4700	11900
11	507		8940	906	---	20900	906	5050	12400
12	476		7940	821	---	17100	906	5100	12500
13	423		6370	765	---	14700	1290	11600	40400
14	372		5000	815	---	15900	1280	13400	46300
15	357		4630	913	---	19300	1750	28300	141000
16	315		3610	1120	---	31700	1390	11800	44300
17	295		3190	1540	18500	76900	1220	8200	27000
18	282		2930	2320	22500	141000	1100	6300	18700
19	289		3070	2640	25900	185000	966	6900	18000
20	329		3920	2280	---	99200	965	6100	15900
21	377		5060	2140	---	82500	830	4800	10800
22	422		6250	2230	---	85000	738	3500	6970
23	437		6670	2440	---	93500	676	3450	6300
24	430		6470	2140	12000	69300	607	2700	4430
25	490		8270	1960	---	57200	580	3200	5010
26	579		11100	2290	---	74500	524	2500	3540
27	504		8590	1890	---	52000	476	2100	2700
28	443		6750	1520	---	33500	437	2350	2770
29	351		4360	1480	---	31000	412	1950	2170
30	399		5540	1390	---	26700	385	1500	1480
31	---			1400	---	26200	---	---	---
TOTAL	12455		187940	47932	---	1938360	29554	---	631370
		JULY			AUGUST			SEPTEMBER	
1	359	---	1650	81	---	73	24	---	27
2	343	---	1510	85	---	80	18	---	16
3	350	---	1570	133	---	1020	14	---	9.9
4	364	---	1690	117	---	966	27	---	34
5	344	---	1520	225	---	3840	36	---	58
6	309	---	1240	250	---	5020	36	---	58
7	276	---	1010	214	---	3500	39	---	68
8	269	---	956	148	---	1500	30	---	41
9	266	---	902	112	---	742	30	---	41
10	286	---	1030	103	---	507	24	---	27
11	244	---	767	87	---	305	21	---	21
12	232	---	698	72	---	214	21	---	21
13	244	---	1190	64	---	172	27	---	34
14	250	---	1130	57	---	138	24	---	27
15	215	---	1100	54	857	125	30	---	41
16	179	---	411	57	---	138	42	---	78
17	176	---	398	53	---	120	57	---	138
18	171	---	361	57	---	138	57	---	138
19	152	---	290	60	---	152	57	---	138
20	137	---	238	58	---	143	57	---	138
21	122	---	183	72	---	214	64	---	172
22	112	---	156	68	---	192	76	---	237
23	107	---	136	72	---	214	85	---	292
24	103	---	127	72	---	214	85	---	292
25	95	---	109	83	---	279	89	---	318
26	97	---	108	76	---	237	103	---	888
27	98	---	110	53	---	120	127	3820	1310
28	88	---	90	46	---	92	152	---	1840
29	107	---	123	39	---	67	174	---	2370
30	94	378	96	37	---	61	168	---	2220
31	85	---	80	33	---	50	---	---	---
TOTAL	6274	---	20979	2738	---	20633	1794	---	11092.9
YEAR	138301		3383651.9						

06318500 CLEAR CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°19'58", long 106°46'36", in SE¼SW¼NW¼ sec.6, T.50 N., R.82 W., Johnson County, Hydrologic Unit 10090206, on left bank 500 ft upstream from abandoned Pacific Power & Light Company powerplant, 2.0 mi downstream from Mosier Gulch, and 4.0 mi west of Buffalo.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--April to September 1894, May to September 1896, May 1897 to December 1899, June 1917 to October 1927, April 1938 to current year. Published as "at Buffalo" 1897-98. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1896, 1898, 1938, 1939(M), 1945(M). WSP 1729: 1921.

GAGE.--Water-stage recorder. Datum of gage is 5,184.83 ft, National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to 1961.

REMARKS.--Records good, except those for winter period, which are fair. Diversions above station for irrigation of about 330 acres, of which about 320 acres are below station.

AVERAGE DISCHARGE.--58 years (water years 1898-99, 1918-27, 1939-84), 64.1 ft³/s, 46,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s, June 15, 1963, gage height, 6.19 ft, from rating curve extended above 900 ft³/s on basis of velocity-area study; no flow Feb. 14-16, 1939, Nov. 12, 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	1930	*1,160	*4.31	June 1	0330	785	3.85
May 21	0230	830	3.91	June 11	0430	673	3.70
May 24	0730	540	3.48	June 15	0900	861	3.97

Minimum daily discharge, 11 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	27	22	14	12	12	14	30	641	404	109	35
2	42	28	22	14	12	12	14	30	367	266	110	36
3	46	28	22	14	12	12	14	34	339	260	92	34
4	45	28	22	14	12	12	15	33	364	239	82	33
5	42	28	22	14	12	12	15	34	355	233	72	32
6	40	27	22	14	12	12	16	32	316	229	66	31
7	39	29	22	14	12	12	18	30	272	224	63	34
8	43	26	21	14	12	12	18	34	252	241	61	32
9	45	17	21	14	12	12	21	49	247	246	58	34
10	42	27	20	14	12	12	18	74	227	211	56	34
11	40	35	20	14	12	12	18	75	405	177	53	33
12	39	32	20	14	13	13	17	109	268	157	54	32
13	38	27	20	14	13	13	16	176	258	147	53	32
14	38	25	19	14	13	13	16	292	553	129	53	31
15	40	21	19	14	13	13	19	558	791	121	52	30
16	39	31	18	14	13	13	24	842	739	112	52	30
17	37	27	18	14	12	13	36	586	616	102	55	29
18	37	26	17	13	12	13	48	445	463	92	61	28
19	37	16	17	13	13	13	51	416	453	95	56	27
20	37	22	16	13	12	14	46	497	482	108	69	27
21	36	23	16	11	13	14	38	693	452	90	60	28
22	34	22	15	12	13	15	36	383	468	117	54	33
23	34	21	15	12	12	14	39	305	387	160	52	38
24	35	22	14	12	12	16	38	482	304	137	49	39
25	34	24	13	12	12	16	32	350	312	115	46	37
26	34	26	13	12	12	15	23	279	348	95	44	38
27	32	24	13	12	12	14	25	294	325	84	42	39
28	29	24	14	12	12	14	42	258	306	77	40	35
29	28	24	14	12	12	15	36	261	322	90	38	35
30	28	23	14	12	---	14	31	353	399	78	36	37
31	28	---	14	12	---	14	---	593	---	76	35	---
TOTAL	1156	760	555	408	356	411	794	8627	12031	4912	1823	993
MEAN	37.3	25.3	17.9	13.2	12.3	13.3	26.5	278	401	158	58.8	33.1
MAX	46	35	22	14	13	16	51	842	791	404	110	39
MIN	28	16	13	11	12	12	14	30	227	76	35	27
AC-FT	2290	1510	1100	809	706	815	1570	17110	23860	9740	3620	1970

CAL YR 1983 TOTAL 26315 MEAN 72.1 MAX 797 MIN 13 AC-FT 52200
WTR YR 1984 TOTAL 32826 MEAN 89.7 MAX 842 MIN 11 AC-FT 65110

06320000 ROCK CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°27'22", long 106°52'42", in NW¼NW¼NW¼ sec.29, T.52 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on left bank 300 ft downstream from confluence of North and South Forks and 11.5 mi northwest of Buffalo.

DRAINAGE AREA.--60.0 mi².

PERIOD OF RECORD.--April to August 1941, April to December 1942, May 1943 to November 1944, April 1945 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft, from topographic map. Prior to Jan. 8, 1944, nonrecording gages 600 ft upstream on North and South Forks at different datums. Jan. 8, 1944, to Sept. 30, 1952, water-stage recorder at present site at datum 0.72 ft lower.

REMARKS.--Records good. Water is imported into drainage basin above station from South Piney Creek. Diversions for irrigation of about 250 acres above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--27 years (water years 1944, 1946-71), 36.4 ft³/s, 26,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s, June 15, 1963, gage height, 7.98 ft, from rating curve extended above 450 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1941, about 8.05 ft, probably during 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 610 ft³/s, May 16, gage height, 6.34 ft; minimum daily during period of operation, 5.2 ft³/s, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							5.2	12	378	106	51	39
2							5.4	11	256	84	49	40
3							5.6	12	269	84	47	40
4							5.8	11	277	73	48	40
5							5.6	10	255	69	43	38
6							6.2	9.6	228	75	42	39
7							7.2	9.1	216	74	42	38
8							6.6	10	185	77	41	37
9							7.9	16	171	75	41	30
10							6.8	25	156	67	40	29
11							6.6	25	269	59	39	28
12							5.8	33	189	54	40	28
13							5.8	58	202	48	40	24
14							5.6	94	351	45	40	19
15							6.4	209	457	44	41	17
16							8.6	401	385	43	43	13
17							14	307	304	43	46	11
18							18	231	254	44	45	9.1
19							21	233	238	42	45	11
20							22	281	240	52	48	12
21							15	343	221	44	48	11
22							13	231	207	49	44	12
23							15	260	175	51	43	13
24							13	348	154	45	42	13
25							11	226	147	41	41	12
26							14	194	140	40	40	13
27							16	205	123	44	40	13
28							16	183	112	42	40	11
29							14	226	115	43	39	11
30							12	332	124	45	40	11
31							---	437	---	42	39	---
TOTAL							315.1	4982.7	6798	1744	1327	662.1
MEAN							10.5	161	227	56.3	42.8	22.1
MAX							22	437	457	106	51	40
MIN							5.2	9.1	112	40	39	9.1
AC-FT							625	9880	13480	3460	2630	1310

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°21'44", long 106°39'13", in SW¼SE¼NW¼ sec.30, T.51 N., R.81 W., Johnson County, Hydrologic Unit 10090206, 100 ft downstream from bridge on county road, 0.5 mi downstream from Rock Creek, and 2.5 mi northeast of Buffalo.

DRAINAGE AREA.--322 mi².

PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)
OCT 27...	1000	54	700	8.4	6.0	12.1	113
DEC 07...	1600	49	770	8.0	1.0	12.1	102
JAN 19...	1115	37	770	8.1	1.0	11.4	93
FEB 24...	1300	39	890	8.1	1.0	12.3	102
MAR 29...	1400	48	1080	8.6	7.0	11.2	105
MAY 10...	1015	196	680	8.4	7.0	10.8	105
JUN 08...	1030	362	220	7.2	8.0	10.1	100
JUL 17...	0930	62	365	8.0	15.0	9.0	105
AUG 15...	1430	16	980	8.3	23.0	9.9	136
SEP 18...	0930	20	1180	8.1	12.0	9.5	102

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 27...	580	<.100	.080	.72	.80	.140
DEC 07...	3600	.100	.290	.71	1.0	.140
JAN 19...	K70	.200	<.010	--	.50	.010
FEB 24...	K16	.100	.050	.35	.40	.020
MAR 29...	K8	<.100	.020	.38	.40	.020
MAY 10...	220	<.100	.020	.58	.60	.080
JUN 08...	110	<.100	.020	.38	.40	.030
JUL 17...	220	<.100	.010	.39	.40	.010
AUG 15...	380	--	--	--	--	--
SEP 18...	390	<.100	.050	.45	.50	.010

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUN 08...	1030	<.01	<.01	<.01	<.01	<.010	<.010
JUL 17...	0930	.06	<.01	<.01	<.01	<.010	.010
SEP 18...	0930	<.01	<.01	<.01	<.01	<.010	.010

06320400 CLEAR CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'09", long 106°32'06", in NE¼SW¼NE¼ sec.19, T.53 N., R.80 W., Johnson County, Hydrologic Unit 10090206, at former gaging station, 0.5 mi upstream from Sheridan-Johnson County line, 0.7 mi south of Ucross, and 1.6 mi upstream from Piney Creek.

DRAINAGE AREA.--409 mi².

PERIOD OF RECORD.--Water year 1976 to September 1981, October 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
13...	1600	284	10.5	<.01	<.01	<.01	<.01	<.010	.020
JUL									
17...	1230	63	22.0	<.01	<.01	<.01	<.01	<.010	<.010
SEP									
18...	1210	21	16.0	<.01	<.01	<.01	<.01	<.010	.010

06320500 SOUTH PINEY CREEK AT WILLOW PARK, WY

LOCATION.--Lat 44°27'59", long 107°02'03", in NW¼ sec.24, T.52 N., R.85 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank about 300 ft downstream from Willow Park Dam, 1.4 mi upstream from Kearny Creek, and 10 mi southwest of Story.

DRAINAGE AREA.--33.6 mi^2.

PERIOD OF RECORD.--September 1945 to September 1957 (no winter records prior to 1948), October 1959 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1309: 1949(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,540 ft, from topographic map. Prior to Oct. 1, 1957, at site about 600 ft upstream at different datum. Oct. 1, 1959, to Sept. 30, 1965, at present site at datum 1.00 ft higher.

REMARKS.--Records good except those for period of no gage-height record, July 1-5, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft, and Willow Park Reservoir, capacity, 4,457 acre-ft. Storage began in Willow Park Reservoir in April 1959. Cloud Peak Reservoir enlarged December 1958. Water released from storage in Cloud Peak Reservoir is diverted just below station into Rock Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1948-57, 1960-71), 42.4 ft^3/s, 30,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft^3/s, June 15, 1963, gage height, 5.68 ft, present datum, from rating curve extended above 360 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft^3/s, Nov. 19-21, 1966, but may have been less on individual days of no gage-height record; minimum daily determined prior to construction of Willow Park Reservoir, 4.5 ft^3/s, Mar. 1 to Apr. 5, 1955, but may have been less during years of no winter records.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily during period of operation, 17 ft^3/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										500	89	88
2										380	93	88
3										260	99	89
4										210	107	88
5										170	107	82
6										155	104	77
7										160	116	72
8										171	99	68
9										183	98	63
10										166	96	59
11										141	95	54
12										105	90	53
13										103	78	48
14										99	74	45
15										94	77	44
16										95	89	44
17										91	100	44
18										87	99	41
19										89	98	40
20										109	98	35
21										114	98	34
22										118	105	35
23										125	114	35
24										125	112	35
25										112	111	35
26										99	108	35
27										87	100	35
28										79	89	35
29										76	89	26
30										73	88	17
31										77	88	---
TOTAL										4453	3008	1544
MEAN										144	97.0	51.5
MAX										500	116	89
MIN										73	74	17
AC-FT										8830	5970	3060

06323000 PINEY CREEK AT KEARNY, WY

LOCATION.--Lat 44°32'08", long 106°49'18", in NE¼NE¼SW¼ sec.26, T.53 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on right bank at Kearny, 300 ft northeast of Historical Monument and 2.0 mi upstream from Little Piney Creek.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--September 1902 to June 1906, June to August 1910, May 1911 to July 1917, May 1919 to September 1923 (no winter records), October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1176: 1944. WSP 1309: 1913(M). WSP 1509: 1906, 1920(M), 1941(M), 1942, 1943(M). WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,655.11 ft, National Geodetic Vertical Datum of 1929. Sept. 6, 1902, to June 30, 1906, nonrecording gage at site 50 ft upstream at different datum. May 14, 1911, to July 31, 1917, and May 1, 1919, to Sept. 30, 1923, nonrecording gage at site 50 ft upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft, Willow Park Reservoir, capacity, 4,457 acre-ft, and Kearny Lake, capacity, 1,860 acre-ft. Diversion above station from South Piney Creek into Rock Creek basin for irrigation. Diversions above station for irrigation of about 240 acres, of which about 90 acres are below station. Record includes flow in bypass channel (Spring Creek), 300 ft left of main channel.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--43 years (water years 1941-84), 87.8 ft³/s, 63,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,410 ft³/s, June 15, 1963, gage height, 6.05 ft, from rating curve extended above 1,800 ft³/s; minimum daily, 1.9 ft³/s, Oct. 3, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft³/s, June 18, gage height, 4.81 ft; maximum gage height, 5.15 ft, Apr. 27 (backwater from snow); minimum daily discharge, 6.4 ft³/s, Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	29	33	38	34	28	36	70	951	623	36	11
2	7.9	29	33	39	34	30	37	72	809	464	39	11
3	8.2	28	34	39	34	30	34	82	782	343	37	10
4	7.6	28	35	40	34	29	36	77	795	288	33	9.7
5	9.0	28	34	40	34	29	40	75	750	239	33	9.4
6	27	28	36	39	34	30	44	71	707	227	36	8.8
7	29	31	37	40	34	30	51	69	676	224	34	9.4
8	29	32	37	39	34	31	50	72	630	263	25	17
9	28	29	37	39	34	29	55	92	624	266	21	23
10	30	34	37	37	34	29	49	115	570	210	19	22
11	38	36	37	39	35	30	49	123	723	146	16	14
12	38	37	36	38	33	29	44	155	586	117	14	12
13	38	33	36	36	34	30	44	232	532	99	12	11
14	38	33	36	29	35	30	44	296	650	96	12	11
15	45	30	34	25	32	30	48	443	841	78	13	11
16	34	36	32	33	32	31	56	600	1050	64	14	9.4
17	32	33	29	31	33	30	69	569	1120	43	17	7.6
18	30	34	31	30	31	33	85	480	1190	29	17	7.0
19	34	30	32	30	30	33	101	470	923	26	17	7.0
20	32	31	32	32	31	35	145	535	861	29	18	6.4
21	30	33	32	34	32	38	109	601	845	35	18	7.6
22	30	30	32	37	29	40	95	485	842	58	19	10
23	30	25	32	39	29	38	94	490	787	64	26	17
24	32	28	32	37	30	39	85	568	668	60	25	17
25	30	35	33	35	30	40	83	437	568	53	26	21
26	30	34	35	34	30	39	59	353	555	34	25	25
27	29	34	35	34	30	40	20	332	536	21	22	30
28	29	35	34	34	30	39	30	294	539	24	16	27
29	28	34	35	34	31	37	40	347	516	27	14	26
30	28	30	36	33	---	38	60	557	536	39	12	20
31	29	---	37	34	---	36	---	920	---	28	13	---
TOTAL	867.6	947	1061	1098	937	1030	1792	10082	22162	4317	679	428.3
MEAN	28.0	31.6	34.2	35.4	32.3	33.2	59.7	325	739	139	21.9	14.3
MAX	45	37	37	40	35	40	145	920	1190	623	39	30
MIN	7.6	25	29	25	29	28	20	69	516	21	12	6.4
AC-FT	1720	1880	2100	2180	1860	2040	3550	20000	43960	8560	1350	850

CAL YR 1983 TOTAL 32755.4 MEAN 89.7 MAX 1030 MIN 4.9 AC-FT 64970
WTR YR 1984 TOTAL 45400.9 MEAN 124 MAX 1190 MIN 6.4 AC-FT 90050

06323500 PINEY CREEK AT UCROSS, WY

LOCATION.--LAT 44°33'45", long 106°32'25", in SW¼NW¼SE¼ sec.18, T.53 N., R.80 W., Sheridan County, Hydrologic Unit 10090206, at Ucross, 140 ft upstream from bridge on U.S. Highways 14 and 16, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--Water years 1975 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
13...	1415	414	12.5	<.01	<.01	<.01	<.01	<.010	.030
JUL									
17...	1400	75	22.0	.04	<.01	<.01	<.01	<.010	.020
SEP									
18...	1400	25	18.0	<.01	<.01	<.01	<.01	<.010	.020

06324000 CLEAR CREEK NEAR ARVADA, WY

LOCATION.--Lat 44°52'18", long 106°04'56", in SE¼ sec.36, T.57 N., R.77 W., Sheridan County, Hydrologic Unit 10090206, 600 ft downstream from Cabin Creek, 1.8 mi upstream from mouth, and 16 mi north of Arvada.

DRAINAGE AREA.--1,110 mi², approximately.

PERIOD OF RECORD.--Water years 1949-54, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 17...	0940	114	1100	1.5	510	120	52	63	1	2.5
JAN 18...	1345	82	1110	.5	490	110	52	65	1	4.2
JUN 04...	1530	925	266	15.0	100	26	8.9	13	.6	.60
SEP 04...	1315	82	1240	19.0	570	130	60	72	1	4.9

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 17...	210	420	3.8	.20	12	800	1.1	246	.100	.000
JAN 18...	210	390	4.0	.10	12	760	1.0	169	.400	.000
JUN 04...	62	62	1.4	.10	8.4	160	.21	394	.100	.000
SEP 04...	210	540	5.4	.20	4.7	940	1.3	209	.000	.000

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN 04...	1530	925	15.0	<.01	<.01	<.01	<.01	<.010	.070
JUL 12...	1525	230	25.0	.04	<.01	<.01	<.01	<.010	.160
SEP 04...	1315	82	19.0	<.01	<.01	<.01	<.01	<.010	.130

06324500 POWDER RIVER AT MOORHEAD, MT

LOCATION.--Lat 45°04'04", long 105°52'10", in NW¼SE¼NW¼ sec.8, T.9 S., R.48 E., Powder River County, Hydrologic Unit 10090207, on left bank 500 ft downstream from discontinued post office at Moorhead, 6.2 mi upstream from Buffalo Creek, and at mile 184.8.

DRAINAGE AREA.--8,088 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to September 1972, October 1974 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,334.6 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 28, 1931, nonrecording gage at site 0.3 mi upstream at different datum. Aug. 28, 1931, to Mar. 21, 1956, water-stage recorder at site 1.2 mi upstream at different datum. Mar. 22 to July 24, 1956, nonrecording gage at site 0.3 mi downstream at different datum. July 25 to Sept. 12, 1956, nonrecording gage at present site and datum.

REMARKS.--Records good except those for May 1 to June 20, which are fair, and those for winter periods, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft. Diversions for irrigation of about 66,300 acres above station.

AVERAGE DISCHARGE.--53 years, 463 ft^3/s, 335,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s, May 20, 1978, gage height, 15.24 ft; maximum gage height, 17.7 ft, Mar. 21, 1956, site and datum then in use (ice jam); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 19 ft, site and datum used 1931-56, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 17	0345	unknown	a*6.34	June 16	1900	3,880	5.25
May 19	1300	*4,620	5.67				

a-backwater from ice.

Minimum daily discharge, 35 ft^3/s, Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	270	120	90	350	420	573	564	2690	1220	233	133
2	129	270	110	120	350	430	532	860	3040	1400	240	139
3	139	277	120	150	330	440	508	1350	2700	1140	295	139
4	156	283	120	200	320	430	485	2010	2470	949	330	137
5	168	283	120	250	310	420	477	2390	2440	823	277	127
6	180	283	110	300	320	420	485	2100	2340	726	309	119
7	180	283	100	310	330	420	524	1900	2180	643	352	109
8	200	303	95	310	340	400	557	1800	1960	625	326	108
9	222	303	90	310	350	420	590	1700	1950	607	284	117
10	233	323	100	300	360	440	650	1500	2020	651	239	109
11	240	323	110	250	370	450	607	1400	1840	607	214	110
12	233	342	120	210	370	450	607	1500	2120	494	196	118
13	226	337	110	190	390	430	549	1540	2070	417	176	118
14	233	337	95	170	400	450	508	1370	2440	367	147	123
15	248	345	80	110	400	500	470	1650	2650	359	132	126
16	262	359	70	130	400	700	439	2040	3720	330	126	127
17	276	337	60	110	390	900	409	2920	3730	309	122	109
18	282	323	45	80	400	1300	394	3790	3430	286	114	95
19	276	323	60	100	390	1100	409	4260	3040	248	109	94
20	255	330	70	60	390	950	461	3830	2760	206	132	93
21	255	323	60	70	400	884	515	3710	2570	187	159	92
22	262	337	50	80	390	873	624	3950	2370	168	162	101
23	283	250	45	100	390	873	616	3740	2260	150	161	143
24	283	130	40	110	390	999	616	3430	2080	156	161	170
25	276	100	35	130	400	948	599	3350	1830	180	165	181
26	273	70	40	160	420	823	751	3430	1650	226	185	219
27	270	90	50	190	410	802	743	3190	1500	206	208	230
28	270	100	70	220	400	872	480	2650	1410	187	205	263
29	283	110	80	250	410	735	508	2290	1330	193	185	289
30	276	100	90	300	---	634	440	2200	1250	206	147	300
31	262	---	110	330	---	590	---	2130	---	220	135	---
TOTAL	7255	7844	2575	5690	10870	20503	16126	74544	69840	14486	6226	4338
MEAN	234	261	83.1	184	375	661	538	2405	2328	467	201	145
MAX	283	359	120	330	420	1300	751	4260	3730	1400	352	300
MIN	124	70	35	60	310	400	394	564	1250	150	109	92
AC-FT	14390	15560	5110	11290	21560	40670	31990	147900	138500	28730	12350	8600

CAL YR 1983 TOTAL 165104 MEAN 452 MAX 2550 MIN 35 AC-FT 327500
WTR YR 1984 TOTAL 240297 MEAN 657 MAX 4260 MIN 35 AC-FT 476600

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 1.1 mi upstream from discontinued post office at Moorhead, and 1.2 mi upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1956-57, 1969-72, 1975 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1977, March 1978 to current year (seasonal records only).

REMARKS.--Flow regulated by reservoirs and diversions for irrigation upstream from station. Once-daily water temperatures are available in the Helena district office. Sediment records are published in the report "Water Resources Data for Montana, Water Year 1984."

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
05...	1000	160	2540	10.5	650	130	78	440	8	8.3
NOV										
16...	1035	352	2040	20.0	550	110	66	270	5	4.7
DEC										
29...	1020	91	2370	.0	660	150	69	300	5	5.8
MAR										
21...	1040	935	1910	5.5	530	130	51	250	5	5.8
MAY										
02...	1020	884	1610	5.0	450	96	51	220	5	4.7
JUN										
27...	1015	1570	662	21.0	240	53	26	74	2	2.8
AUG										
08...	0915	329	2700	20.0	650	150	67	400	7	7.8

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
05...	250	740	420	.40	3.9	2000	2.7	851	.10	.520
NOV										
16...	250	620	170	.30	6.7	1400	1.9	1330	.20	.100
DEC										
29...	300	740	200	.40	13	1700	2.3	407	.60	.510
MAR										
21...	170	780	84	.70	7.6	1400	1.9	3560	.50	.000
MAY										
02...	190	580	79	.40	7.4	1200	1.6	2750	.20	.040
JUN										
27...	100	240	29	.00	9.8	490	.67	2100	.20	.010
AUG										
08...	220	970	220	.50	7.7	2000	2.7	1740	.50	.000

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°55'37", long 105°21'10", in NW¼SW¼SW¼ sec.13, T.57 N., R.71 W., Campbell County, Hydrologic Unit 10090208, on left bank 3.1 mi upstream from Dry Creek, 5.0 mi south of the Wyoming-Montana State line, and 20 mi north of Weston.

DRAINAGE AREA.--1,235 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR WY-77-1: Drainage area. WDR WY-78-1: 1976(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft, from topographic map.

REMARKS.--Records fair except those for winter period and September, which are poor. Diversion above station for irrigation of about 80 acres below station. Flow occasionally affected by contributions from mine dewatering.

AVERAGE DISCHARGE.--12 years, 23.9 ft^3/s, 17,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,300 ft^3/s, May 19, 1978, gage height, 11.62 ft; maximum gage height, 11.63 ft, Mar. 20, 1978 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 7	1330	821	6.82	June 16	1130	*1,640	*8.26
May 17	0600	159	4.44	Aug. 4	1300	202	4.68
June 11	1230	623	6.37				

No flow Oct. 1, 2, Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.61	1.9	1.6	27	9.6	9.9	20	15	17	13	.16
2	.00	.68	2.0	1.7	25	10	10	96	16	16	9.4	.17
3	.08	.75	2.0	2.0	24	10	10	177	25	15	8.1	.23
4	.08	.75	1.6	2.2	23	9.3	9.5	459	15	14	110	.19
5	.17	.68	1.9	2.5	24	9.0	27	548	12	13	66	.33
6	.30	.68	2.0	2.9	23	9.0	24	572	11	11	29	.53
7	.12	.93	1.6	3.1	19	9.1	21	649	9.8	11	8.4	.72
8	.12	1.1	1.7	2.9	21	9.4	17	517	13	9.6	.94	.62
9	.17	1.0	2.1	2.9	22	9.8	12	299	15	9.5	.14	.56
10	.17	.84	2.3	2.9	28	11	9.5	227	105	8.7	.02	.49
11	.25	.93	2.0	2.9	31	11	8.1	194	490	7.9	.02	.44
12	.30	1.2	2.0	4.3	25	11	7.4	162	196	7.5	.01	.39
13	.43	1.2	2.3	5.3	22	11	6.7	121	128	7.0	.00	.35
14	.75	1.2	2.3	6.1	21	13	6.2	94	134	6.8	.01	.30
15	.93	1.2	1.8	5.1	19	28	5.9	76	707	6.3	.02	.26
16	.68	1.2	1.5	2.3	18	61	5.6	59	1440	5.9	.02	.23
17	.68	1.2	1.4	1.9	19	31	5.2	93	999	5.6	.02	.21
18	.68	1.2	1.3	1.6	17	26	4.8	48	317	5.5	.04	.20
19	.54	1.1	1.2	1.5	14	25	4.3	42	251	5.5	.03	.24
20	.54	1.1	1.2	1.4	13	29	4.1	32	198	5.6	.04	.32
21	.68	1.2	1.1	1.3	13	24	3.3	27	134	5.6	.07	.50
22	.61	1.2	1.1	1.2	12	23	2.6	24	93	5.3	.05	.62
23	.54	1.3	1.0	1.3	12	22	1.9	20	73	5.7	.05	.74
24	.48	1.2	1.0	1.5	10	18	2.0	17	55	5.8	.05	.82
25	.54	1.2	1.0	1.7	9.8	14	2.6	16	42	5.8	.04	.90
26	.54	1.4	1.1	2.3	8.8	13	5.0	15	33	5.7	.12	1.1
27	.48	1.4	1.1	2.6	8.1	13	7.9	14	30	5.8	.16	3.0
28	.48	1.6	1.2	3.6	7.6	12	13	14	27	3.8	.12	2.7
29	.48	1.9	1.4	5.6	7.0	13	17	14	23	5.5	.09	2.6
30	.61	1.9	1.5	18	---	19	18	13	19	11	.09	2.3
31	.61	---	1.6	28	---	11	---	13	---	8.8	.12	---
TOTAL	13.04	33.85	49.2	124.2	523.3	524.2	281.5	4672	5625.8	257.2	246.17	22.22
MEAN	.42	1.13	1.59	4.01	18.0	16.9	9.38	151	188	8.30	7.94	.74
MAX	.93	1.9	2.3	28	31	61	27	649	1440	17	110	3.0
MIN	.00	.61	1.0	1.2	7.0	9.0	1.9	13	9.8	3.8	.00	.16
AC-FT	26	67	98	246	1040	1040	558	9270	11160	510	488	44

CAL YR 1983 TOTAL 6199.31 MEAN 17.0 MAX 348 MIN .00 AC-FT 12300
WTR YR 1984 TOTAL 12372.68 MEAN 33.8 MAX 1440 MIN .00 AC-FT 24540

Reservoirs in Yellowstone River basin in Wyoming

06224500 BULL LAKE.--Lat 43°12'35", long 109°02'30", in E½NW¼ sec.30, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at dam on Bull Lake Creek, 2.8 mi upstream from mouth of Bull Lake Creek, and 9.8 mi south of Lenore. DRAINAGE AREA, 210 mi², of which 12 mi² is probably noncontributing. PERIOD OF RECORD, April 1938 to current year. Monthend contents only for some periods, published in WSP 1309. Published as Bull Lake Reservoir near Lenore 1938-50. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum).

REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation July 22, 1938. Capacity, 152,500 acre-ft below elevation 5,805.00 ft, top of spillway gates. Dead storage, 722 acre-ft. Figures given herein represent total contents. Water used for irrigation near Riverton. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 154,200 acre-ft, Aug. 10, 1965, elevation, 5,805.70 ft; minimum daily (since appreciable storage was attained), 5,540 acre-ft, Mar. 15, 1950, elevation, 5,742.56 ft.

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 152,100 acre-ft, July 10, elevation, 5,804.89 ft; minimum daily, 86,430 acre-ft, Sept. 27, elevation, 5,781.99 ft.

06258900 BOYSEN RESERVOIR.--Lat 43°25'00", long 108°10'37", in NW¼NW¼ sec.16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi north of Shoshoni. DRAINAGE AREA, 7,700 mi². PERIOD OF RECORD, October 1951 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum of 1933).

REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation in October 1951. Capacity, 802,000 acre-ft below elevation 4,725.00 ft, top of spillway gate. Includes 59,880 acre-ft dead storage below elevation 4,657.00 ft, invert of penstock pipe. Figures given herein represent total contents. Water used for irrigation, flood control, and power development. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 922,400 acre-ft, July 6, 7, 1967, elevation, 4,730.83 ft; minimum daily (since normal use of water started), 251,800 acre-ft, Mar. 18, 19, 1956, elevation, 4,684.18 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 802,800 acre-ft, Aug. 3, elevation, 4,725.04 ft; minimum daily, 537,400 acre-ft, May 13, elevation, 4,709.50 ft.

06260300 ANCHOR RESERVOIR.--Lat 43°39'50", long 108°49'27", in sec.26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2.0 mi downstream from Middle Fork, 3.0 mi southeast of Anchor, and 32 mi west of Thermopolis. DRAINAGE AREA, 131 mi². PERIOD OF RECORD, November 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum).

REMARKS, reservoir is formed by concrete arch dam completed by Bureau of Reclamation in 1960. Capacity, 17,230 acre-ft below elevation 6,441.00 ft, crest of spillway. Includes 68 acre-ft below elevation 6,343.75 ft, invert of river outlet. Figures given herein represent total contents. Water used for irrigation of lands in Owl Creek basin. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 9,250 acre-ft, July 4, 1967, elevation, 6,418.52 ft; no storage on many days each year.

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 2,760 acre-ft, June 2, elevation, 6,388.15 ft; no storage on many days.

06281500 BUFFALO BILL RESERVOIR.--Lat 44°30'05", long 109°11'00", in NE¼ sec.12, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, at dam on Shoshone River, 5.0 mi upstream from Trail Creek, and 6.0 mi southwest of Cody. DRAINAGE AREA, 1,498 mi². PERIOD OF RECORD, May to July 1909, January 1910 to current year. Monthend contents only prior to October 1938, published in WSP 1309. Prior to October 1944, published as Shoshone Reservoir near Cody. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum). Prior to July 8, 1959, nonrecording gage at same datum.

REMARKS, reservoir is formed by masonry dam completed by Bureau of Reclamation in 1909. Capacity, 424,000 acre-ft between elevations 5,140.00 ft, gate sill, and 5,360.00 ft, crest of spillway. Dead storage negligible. Figures given herein represent total contents. Water used for power development and irrigation of lands east of Cody. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 507,000 acre-ft, June 15, 1918, elevation, 5,367.3 ft; minimum daily, 19,000 acre-ft, Jan. 23-25, 1941, elevation, 5,225.3 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 450,000 acre-ft, June 30, elevation, 5,363.80 ft; minimum daily, 277,100 acre-ft, May 12, elevation, 5,335.42 ft.

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,788.78	104,500	-
Oct. 31	5,788.92	104,900	+400
Nov. 30	5,784.28	105,900	+1,000
Dec. 31	5,789.70	107,000	+1,100
CAL YR 1983	-	-	-1,300
Jan. 31	5,789.80	107,300	+300
Feb. 29	5,789.89	107,600	+300
Mar. 31	5,789.89	107,600	0
Apr. 30	5,787.80	101,800	-5,800
May 31	5,791.47	112,000	+10,200
June 30	5,802.33	144,100	+32,100
July 31	5,802.55	144,800	+700
Aug. 31	5,794.04	119,300	-25,500
Sept. 30	5,782.24	87,070	-32,230
WTR YR 1984	-	-	-17,430
06258900 BOYSEN RESERVOIR			
Sept. 30	4,721.04	727,200	-
Oct. 31	4,719.65	702,100	-25,100
Nov. 30	4,716.79	652,400	-49,700
Dec. 31	4,715.63	632,900	-19,500
CAL YR 1983	-	-	-38,500
Jan. 31	4,714.43	613,300	-19,600
Feb. 29	4,713.18	593,400	-19,900
Mar. 31	4,712.39	581,100	-12,300
Apr. 30	4,710.46	551,700	-29,400
May 31	4,714.78	619,000	+67,300
June 30	4,720.65	720,100	+101,100
July 31	4,724.82	798,500	+78,400
Aug. 31	4,723.65	775,900	-22,600
Sept. 30	4,722.56	755,300	-20,600
WTR YR 1984	-	-	+28,100
06260300 ANCHOR RESERVOIR			
Sept. 30	DRY	0	-
Oct. 31	DRY	0	0
Nov. 30	DRY	0	0
Dec. 31	DRY	0	0
CAL YR 1983	-	-	0
Jan. 31	DRY	0	0
Feb. 29	DRY	0	0
Mar. 31	DRY	0	0
Apr. 30	6,340.00	34	+34
May 31	6,384.90	2,340	+2,306
June 30	6,369.95	979	-1,361
July 31	6,349.00	138	-841
Aug. 31	6,340.00	34	-104
Sept. 30	DRY	0	-34
WTR YR 1984	-	-	0
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,345.51	332,700	-
Oct. 31	5,345.10	330,300	-2,400
Nov. 30	5,346.17	336,600	+6,300
Dec. 31	5,344.81	328,600	-8,000
CAL YR 1983	-	-	-40,100
Jan. 31	5,343.37	320,300	-8,300
Feb. 29	5,341.49	309,700	-10,600
Mar. 31	5,339.49	298,700	-11,000
Apr. 30	5,337.03	285,500	-13,200
May 31	5,348.82	352,400	+66,900
June 30	5,363.80	450,000	+97,600
July 31	5,361.14	431,700	-18,300
Aug. 31	5,355.31	393,100	-38,600
Sept. 30	5,349.57	357,000	-36,100
WTR YR 1984	-	-	+24,300

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°34'54", long 104°43'11", in SW¼SW¼SW¼ sec.30, T.42 N., R.65 W., Weston County, Hydrologic Unit 10120103, on right bank 20 ft downstream from bridge on county road, 1.3 mi west of Hampshire, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--535 mi^2, approximately.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft, from map prepared by Army Map Service, Corps of Engineers.

REMARKS.--Records fair except those for January to March, which are poor. There are many small stock ponds above station. No diversion above station.

AVERAGE DISCHARGE.--12 years, 7.59 ft^3/s, 5,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,050 ft^3/s, May 18, 1978, gage height, 14.13 ft, from floodmark, from rating curve extended above 630 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 15	2200	297	7.18	May 5	1800	*299	*7.19

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	8.7	2.7	.69	4.9	1.5	.00	1.6	.00
2	.00	.00	.00	.00	7.4	3.6	.60	6.7	1.4	.00	1.2	.00
3	.05	.00	.00	.00	6.6	5.2	.56	13	1.4	.00	5.0	.00
4	28	.00	.00	.00	11	5.8	.52	114	4.8	.00	.36	.00
5	6.1	.00	.00	.00	9.5	4.9	.49	249	90	.00	.07	.00
6	2.2	.00	.00	10	7.1	4.4	.50	156	33	.00	.03	.00
7	.46	.00	.00	23	5.8	3.9	.89	146	9.0	.00	3.0	.00
8	.26	.00	.00	26	22	3.5	.90	113	5.5	.00	1.4	.00
9	.10	.00	.00	20	58	2.9	2.1	100	4.0	.00	.41	.00
10	.00	.00	.00	16	75	2.9	2.1	101	3.3	.00	.09	.00
11	.00	.00	.00	11	56	3.1	1.3	80	2.5	.00	.00	.00
12	.00	.00	.00	6.1	45	3.3	1.2	39	1.4	.00	.00	.00
13	.00	.00	.00	3.0	35	3.4	1.1	27	2.1	.00	.00	.00
14	.00	.00	.00	1.1	22	5.0	.89	24	.99	.00	.00	.00
15	.00	.00	.00	.30	16	122	.65	16	.50	.00	.00	.00
16	.00	.00	.00	.07	12	129	.44	11	.28	.00	.00	.00
17	.00	.00	.00	.00	9.4	41	.26	6.5	.16	.00	.00	.00
18	1.3	.00	.00	.00	7.6	18	.10	3.5	.10	.00	.00	.00
19	1.6	.00	.00	.00	6.5	12	.00	2.4	.05	.00	4.0	.00
20	44	.00	.00	.00	5.6	21	.00	1.9	.00	.00	79	.00
21	12	.00	.00	.00	4.8	19	.00	8.2	.00	.00	8.2	.00
22	4.1	.00	.00	.00	4.3	15	.00	12	.00	.00	2.8	.00
23	1.5	.00	.00	.00	3.9	8.5	.00	9.4	.00	.00	1.4	.00
24	.50	.00	.00	.06	3.5	6.1	.00	6.8	.00	.00	.65	.00
25	.29	.00	.00	.21	3.2	4.3	.05	5.1	.00	.00	.41	.00
26	.00	.00	.00	.35	2.9	2.9	.17	3.8	.00	.00	.18	.00
27	.00	.00	.00	2.9	2.7	2.1	.23	3.2	.00	.00	.08	.00
28	.00	.00	.00	4.5	2.5	1.5	.30	2.6	.00	.00	.00	.00
29	.00	.00	.00	12	2.4	1.2	.40	2.2	.00	.00	.00	.00
30	.00	.00	.00	5.5	---	.95	2.1	1.9	.00	.00	.00	.00
31	.00	---	.00	7.3	---	.81	---	1.6	---	.00	.00	---
TOTAL	102.46	.00	.00	149.39	456.4	459.96	18.54	1271.7	161.98	.00	109.88	.00
MEAN	3.31	.000	.000	4.82	15.7	14.8	.62	41.0	5.40	.000	3.54	.000
MAX	44	.00	.00	26	75	129	2.1	249	90	.00	79	.00
MIN	.00	.00	.00	.00	2.4	.81	.00	1.6	.00	.00	.00	.00
AC-FT	203	.00	.00	296	905	912	37	2520	321	.00	218	.00

CAL YR 1983 TOTAL 760.54 MEAN 2.08 MAX 241 MIN .00 AC-FT 1510
WTR YR 1984 TOTAL 2730.31 MEAN 7.46 MAX 249 MIN .00 AC-FT 5420

06386400 CHEYENNE RIVER AT RIVERVIEW, WY

LOCATION.--Lat 43°25'41", long 104°11'45", in NW¼NE¼SW¼ sec.21, T.40 N., R.61 W., Niobrara County, Hydrologic Unit 10120106, at bridge on U.S. Highway 85, 0.5 mi north of Riverview, 0.9 mi upstream from Bobcat Creek, 4.7 mi upstream from former gaging station, and 30 mi south of Newcastle.

DRAINAGE AREA.--5,160 mi², approximately.

PERIOD OF RECORD.--Water years 1951-54, 1969-70, 1972 to current year. Published as South Fork Cheyenne River near Spencer prior to October 1951, as Cheyenne River near Spencer 1952-76, and as Cheyenne River near Riverview 1977-79.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
05...	1530	35	21.5	<.01	<.01	<.01	<.01	<.010	.020
JUL									
09...	1550	13	28.0	.01	<.01	<.01	<.01	<.010	.030
SEP									
06...	1230	.89	21.0	<.01	<.01	<.01	<.01	<.010	.090

06394000 BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, Hydrologic Unit 10120107, at highway bridge, 2.2 mi downstream from Sheep Creek, and 23 mi south of Newcastle.

DRAINAGE AREA.--1,320 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1943, October 1944 to current year.

REVISED RECORDS.--WSP 1209: 1943, 1946, 1948-49.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft, from topographic map. Prior to Nov. 1, 1945, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. There are many small reservoirs above station used for storage of stock and irrigation water, total capacity, about 11,000 acre-ft. Diversions for irrigation of about 4,900 acres above station.

AVERAGE DISCHARGE.--40 years (water years 1945-84), 31.2 ft³/s, 22,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s, June 16, 1962, gage height, 19.98 ft; no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 494 ft³/s, May 3, gage height, 7.02 ft; maximum gage height, 9.10 ft, Mar. 15 (backwater from ice); no peak above base of 500 ft³/s; minimum daily discharge, 1.9 ft³/s, July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	15	10	14	14	30	33	345	4.9	5.1	3.9	4.2
2	14	15	11	14	14	46	33	462	4.9	4.8	3.1	4.4
3	19	15	11	14	13	73	33	411	32	4.8	7.0	4.4
4	20	15	11	14	13	95	33	293	28	5.8	3.2	4.3
5	20	15	11	14	13	80	33	292	14	3.7	2.9	4.7
6	17	14	13	14	13	58	34	240	11	4.0	2.4	5.8
7	11	14	13	14	13	71	37	167	25	6.2	2.3	6.4
8	11	17	14	14	14	69	38	117	19	7.4	2.9	6.0
9	12	17	11	13	13	67	36	98	20	24	2.7	6.0
10	11	15	12	13	13	64	27	85	38	67	2.7	6.7
11	12	14	12	13	14	60	24	58	104	55	2.7	7.0
12	13	18	13	13	15	63	20	47	241	23	2.7	6.8
13	13	16	13	13	15	74	19	39	103	14	5.1	7.4
14	14	16	14	12	14	160	17	34	49	12	5.1	5.8
15	19	15	15	13	15	410	12	25	34	9.7	7.4	4.5
16	18	14	14	14	18	290	9.5	19	122	13	6.5	3.8
17	20	14	14	14	22	200	8.7	16	168	26	6.9	3.6
18	16	14	11	13	23	152	8.2	15	44	15	11	3.7
19	15	13	12	12	22	110	7.1	13	25	9.2	24	3.7
20	23	13	8.7	8.7	21	89	8.3	12	22	8.0	17	3.5
21	21	13	9.7	11	20	74	8.6	14	36	7.9	11	3.2
22	21	11	11	13	22	62	6.2	12	28	5.5	9.4	3.2
23	25	9.3	12	13	25	56	5.3	9.2	18	4.1	8.2	3.3
24	24	14	12	13	29	52	5.0	8.0	25	3.3	6.7	3.8
25	21	13	12	13	28	46	7.6	8.5	15	16	6.4	4.1
26	18	12	12	13	26	41	15	8.3	11	6.3	6.1	4.3
27	17	12	12	13	24	38	25	8.5	8.3	2.4	5.7	5.1
28	16	11	13	13	23	36	44	7.9	6.4	2.0	5.5	5.5
29	16	10	13	13	22	34	108	6.4	5.8	2.0	5.8	5.2
30	15	9.8	13	14	---	33	191	5.5	4.2	1.9	5.3	5.6
31	14	---	14	14	---	33	---	5.4	---	5.1	4.9	---
TOTAL	511.5	414.1	377.4	406.7	531	2766	886.5	2881.7	1266.5	374.2	196.5	146.0
MEAN	16.5	13.8	12.2	13.1	18.3	89.2	29.6	93.0	42.2	12.1	6.34	4.87
MAX	25	18	15	14	29	410	191	462	241	67	24	7.4
MIN	5.5	9.3	8.7	8.7	13	30	5.0	5.4	4.2	1.9	2.3	3.2
AC-FT	1010	821	749	807	1050	5490	1760	5720	2510	742	390	290

CAL YR 1983 TOTAL 8066.8 MEAN 22.1 MAX 1060 MIN 1.3 AC-FT 16000
WTR YR 1984 TOTAL 10758.1 MEAN 29.4 MAX 462 MIN 1.9 AC-FT 21340

06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1950-57, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
26...	1530	18	3790	9.5	1200	360	85	420	5	4.2
DEC										
05...	1545	11	4650	.5	1800	460	150	510	5	6.5
MAY										
07...	1730	153	1600	11.0	440	93	51	200	4	5.2
AUG										
09...	1100	2.6	7580	23.5	2400	560	240	1100	10	9.3

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
26...	160	1300	540	.40	9.2	2800	3.8	137	.100	.180
DEC										
05...	220	1800	560	.30	12	3600	4.9	108	.500	.120
MAY										
07...	110	510	150	.40	6.1	1100	1.5	447	.000	.070
AUG										
09...	120	2600	1500	.40	.0	6100	8.3	43	.000	.020

06395000 CHEYENNE RIVER AT EDGEMONT, SD

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼SE¼SE¼ sec.36, T.8 S., R.2 E., Fall River County, Hydrologic Unit 10120106, on right bank at downstream side of bridge on U.S. Highway 18, at Edgemont, 300 ft downstream from Burlington Northern Railroad bridge, and 600 ft upstream from Cottonwood Creek.

DRAINAGE AREA.--7,143 mi^2.

PERIOD OF RECORD.--June 1903 to November 1906 (no winter records), April 1928 to February 1933, October 1946 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1116: 1947. WDR SD-78-1 1977.

GAGE.--Water-stage recorder. Datum of gage is 3,414.56 ft, National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1906, nonrecording gage 20 ft upstream at datum 0.7 ft lower. Apr. 11, 1928, to Feb. 28, 1933, Oct. 4, 1946, to Oct. 23, 1947, and Jan. 11, 1961, to Apr. 24, 1963, nonrecording gage, and Oct. 24, 1947, to Jan. 10, 1961, and Apr. 25, 1963, to Sept. 30, 1972, water-stage recorder all at present site at datum 2.00 ft higher.

REMARKS.--Records good except those for winter period, Nov. 23 to Mar. 13, which are poor. Many small reservoirs above station used for stock and irrigation water, total capacity, about 45,000 acre-ft.

AVERAGE DISCHARGE.--42 years, 98.4 ft^3/s, 71,290 acre-ft/yr; median of yearly mean discharges, 76 ft^3/s, 55,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s, May 20, 1978, gage height, 13.65 ft, present datum; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 12, 1920, reached a stage of 13.0 ft, and May 1, 1922, 14.0 ft, present datum, from floodmarks at railroad bridge.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft^3/s, May 3, gage height, 4.94 ft, no peak above base of 1,500 ft^3/s; minimum daily, 1.0 ft^3/s, Dec. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	13	9.0	10	210	130	82	565	98	39	80	6.2
2	5.3	14	8.0	11	200	140	80	1120	75	37	144	5.2
3	12	14	7.0	12	190	150	83	1340	61	37	93	5.4
4	20	14	6.8	13	170	160	79	1100	67	58	53	5.2
5	18	14	6.6	14	160	180	70	997	87	53	41	5.2
6	18	14	6.4	13	160	150	70	931	67	33	71	5.2
7	17	15	6.6	11	170	100	73	880	63	27	33	5.0
8	15	27	7.0	7.0	160	110	75	708	72	26	19	4.5
9	11	25	7.4	4.0	160	110	74	608	110	28	13	5.5
10	11	23	8.0	2.6	160	120	72	536	97	42	12	5.6
11	12	20	8.0	2.3	160	120	63	461	93	58	10	5.3
12	11	21	8.0	2.0	160	150	52	404	123	81	8.0	6.4
13	11	25	7.4	1.8	150	200	46	373	255	47	7.3	6.1
14	13	30	6.4	1.6	150	269	35	357	141	25	8.9	6.4
15	17	23	5.0	1.5	150	357	34	308	398	18	8.0	6.1
16	23	19	3.0	1.4	150	569	32	257	367	49	8.5	6.1
17	20	19	1.2	1.3	140	578	21	217	315	21	13	5.1
18	22	19	1.1	1.2	150	540	19	207	245	19	97	4.4
19	20	16	1.1	1.2	160	450	25	194	232	25	46	3.9
20	14	16	1.1	1.2	160	540	38	175	129	14	48	3.0
21	18	11	1.1	1.2	180	660	28	170	118	11	42	2.5
22	22	7.4	1.0	1.3	160	729	23	155	109	11	40	2.8
23	20	7.4	1.0	1.4	150	606	17	146	99	14	33	3.0
24	24	9.0	1.1	1.5	140	473	41	142	81	16	24	3.2
25	24	10	1.4	1.7	130	343	176	140	80	10	26	3.8
26	21	10	1.9	5.0	130	261	148	125	71	15	31	3.7
27	20	10	2.0	30	130	290	141	126	60	22	24	4.2
28	18	10	1.7	170	120	246	348	128	52	10	18	5.1
29	17	10	1.8	190	120	181	222	126	45	18	12	5.5
30	15	10	2.0	200	---	135	366	117	39	18	8.3	6.0
31	15	---	4.0	220	---	100	---	109	---	29	7.0	---
TOTAL	509.6	475.8	134.1	935.2	4530	9147	2633	13222	3849	911	1079.0	145.6
MEAN	16.4	15.9	4.33	30.2	156	295	87.8	427	128	29.4	34.8	4.85
MAX	24	30	9.0	220	210	729	366	1340	398	81	144	6.4
MIN	5.3	7.4	1.0	1.2	120	100	17	109	39	10	7.0	2.5
AC-FT	1010	944	266	1850	8990	18140	5220	26230	7630	1810	2140	289

CAL YR 1983 TOTAL 15959.5 MEAN 43.7 MAX 837 MIN 1.0 AC-FT 31660
WTR YR 1984 TOTAL 37571.3 MEAN 103 MAX 1340 MIN 1.0 AC-FT 74520

06426400 DONKEY CREEK NEAR MOORCROFT, WY

LOCATION.--Lat 44°16'58", long 105°03'48", in SE¼NE¼SE¼ sec.30, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, 25 ft upstream from county bridge, 1.2 mi downstream from Well Creek, and 6.0 mi west of Moorcroft.

DRAINAGE AREA.--246 mi².

PERIOD OF RECORD.--September 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
24...	1230	3.8	2720	8.6	11.0	10.1	107
JAN							
16...	1245	1.6	4000	8.1	1.0	8.0	66
APR							
03...	1130	6.0	2700	9.2	8.0	20.0	197
MAY							
09...	1510	104	970	8.1	13.0	8.7	97
JUN							
07...	1130	11	3000	8.8	18.0	11.4	143
AUG							
07...	0715	.67	2200	7.9	17.0	7.1	87

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
24...	100	<.100	.040	1.4	1.4	.350
JAN						
16...	84	2.50	9.70	2.3	12	1.60
APR						
03...	<1	1.60	1.60	5.4	7.0	2.30
MAY						
09...	160	.300	.160	1.5	1.7	.370
JUN						
07...	44	--	--	--	--	--
AUG						
07...	420	<.100	.140	2.5	2.6	.330

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY

LOCATION.--Lat 44°17'44", long 104°58'35", in SE¼SW¼ sec.24, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, 150 ft upstream from Trail Creek, 1.9 mi downstream from Donkey Creek, and 2.6 mi northwest of Moorcroft.

DRAINAGE AREA.--1,670 mi², approximately.

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
24...	1420	8.7	1100	8.0	8.5	8.0	79
DEC							
07...	0800	1.8	3310	8.2	1.0	8.8	72
JAN							
16...	1615	2.5	2000	7.9	1.0	9.2	75
MAR							
01...	1315	14	1540	8.0	1.0	11.1	91
APR							
03...	1430	14	1900	8.6	6.0	15.0	140
MAY							
09...	1030	360	630	8.2	9.0	9.8	98
JUN							
07...	0830	70	860	7.9	15.0	7.2	84
JUL							
11...	1500	4.8	2800	8.3	26.0	11.0	159
AUG							
07...	0830	4.9	1190	7.7	21.5	4.7	62
SEP							
05...	0800	.15	2400	--	15.0	6.6	76

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
24...	1000	.30	.030	3.4	3.4	.210
DEC						
07...	140	1.8	6.20	.80	7.0	1.80
JAN						
16...	300	.30	1.40	1.1	2.5	.140
MAR						
01...	K18	.50	.410	2.3	2.7	.480
APR						
03...	K6	.60	<.010	--	1.4	.460
MAY						
09...	240	.20	.090	.31	.40	.290
JUN						
07...	K6100	.20	.050	.25	.30	.550
JUL						
11...	190	<.10	.070	1.6	1.7	.160
AUG						
07...	840	.20	.090	1.8	1.9	.200
SEP						
05...	K12	<.10	.140	1.4	1.5	.090

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN							
07...	0830	.11	<.01	<.01	<.01	<.010	.020
JUL							
11...	1500	.08	<.01	<.01	<.01	.010	.040
SEP							
05...	0800	.03	<.01	<.01	<.01	.020	.120

06427000 KEYHOLE RESERVOIR NEAR MOORCROFT, WY

LOCATION.--Lat 44°22'55", long 104°46'45", in NW¼NW¼ sec.27, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, at reservoir dam on Belle Fourche River 12 mi northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi^2, approximately.

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum). Prior to May 15, 1958, and Oct. 1, 1968 to Mar. 13, 1970, nonrecording gages; May 15, 1958 to Sept. 30, 1968, water-stage recorder; all at present site and datum.

REMARKS.--Reservoir is formed by a zoned earthfill dam completed by the Bureau of Reclamation Oct. 25, 1952. Storage began Feb. 12, 1952. Dead storage, below elevation 4,036.0 ft, 730 acre-ft. Inactive storage, between elevations 4,036.0 ft and 4,051.0 ft, 7,230 acre-ft. Total capacity below elevation 4,099.3 ft, crest of spillway, 193,800 acre-ft. Figures given herein represent total contents. The reservoir provides flood control and water for irrigation in Wyoming and near Belle Fourche, SD.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 210,200 acre-ft, May 21, 1978, elevation, 4,100.38 ft; minimum daily (since appreciable storage was attained), 6,030 acre-ft, Mar. 8, 9, 1955, elevation, 4,046.35 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 91,190 acre-ft, June 21-24, elevation, 4,084.75 ft; minimum daily, 50,570 acre-ft, Oct. 7, 8, elevation, 4,074.61 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,074.59	50,510	-
Oct. 31	4,074.79	51,140	+630
Nov. 30	4,074.76	51,050	-90
Dec. 31	4,074.81	51,210	+160
CAL YR 1983	-	-	-8,680
Jan. 31	4,074.83	51,270	+60
Feb. 29	4,075.47	53,350	+2,080
Mar. 31	4,078.89	65,510	+12,160
Apr. 30	4,079.25	66,900	+1,390
May 31	4,082.25	79,350	+12,450
June 30	4,084.61	90,490	+11,140
July 31	4,083.63	85,720	-4,770
Aug. 31	4,082.94	82,480	-3,240
Sept. 30	4,082.49	80,420	-2,060
WTR YR 1984	-	-	+29,910

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY

LOCATION.--Lat 44°23'18", long 104°46'12", in SE¼NE¼SW¼ sec.22, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, on right bank 0.9 mi downstream from Keyhole Dam, 1.7 mi downstream from Mule Creek, 2.9 mi upstream from Spring Creek, and 12 mi northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft, from topographic map. Prior to Aug. 30, 1979, at site 0.7 mi upstream at different datum.

REMARKS.--Records fair except those for October to February, which are poor. Flow completely regulated by Keyhole Reservoir, 0.9 mi upstream, since February 1952. (See sta 06427000.) Diversions for irrigation of about 820 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft^3/s, May 23, 1978, gage height, 10.65 ft at present datum; maximum gage height, 6.30 ft, Sept. 5, 1951, site and datum in use; minimum daily discharge since appreciable storage in Keyhole Reservoir, 0.30 ft^3/s, Feb. 6-20, 1960; no flow at times in 1951-52.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 117 ft^3/s, July 23, gage height, 6.30 ft; minimum daily, 1.3 ft^3/s, Mar. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.5	1.5	1.4	1.6	1.4	1.8	2.0	1.7	2.3	76	1.8
2	2.0	1.5	1.5	1.5	1.6	1.4	1.8	1.8	1.8	2.3	71	1.8
3	2.0	1.5	1.5	1.6	1.6	1.4	1.8	1.8	2.0	2.5	71	2.0
4	2.0	1.5	1.5	1.6	1.6	1.4	1.8	1.8	2.1	2.5	71	2.0
5	2.0	1.5	1.5	1.6	1.6	1.4	2.0	1.8	2.1	2.3	71	2.0
6	1.9	1.5	1.5	1.7	1.6	1.4	2.0	2.0	2.0	2.3	72	2.0
7	1.9	1.5	1.5	1.6	1.7	1.4	2.0	2.0	2.0	2.3	49	2.0
8	1.9	1.5	1.5	1.5	1.7	1.3	2.0	2.0	2.0	2.1	3.6	2.1
9	1.9	1.5	1.4	1.5	1.7	1.3	2.0	1.8	2.5	2.0	3.6	1.8
10	1.9	1.5	1.4	1.5	1.7	1.3	1.8	1.8	2.0	1.8	3.3	1.8
11	1.8	1.5	1.4	1.5	1.7	1.4	1.7	1.8	1.7	1.7	3.1	2.0
12	1.8	1.5	1.4	1.5	1.7	1.4	1.7	1.8	1.8	1.7	2.7	2.1
13	1.6	1.5	1.4	1.5	1.8	1.4	1.8	1.8	2.1	1.5	2.9	2.1
14	1.6	1.5	1.4	1.5	1.7	1.7	1.8	2.0	8.1	1.7	2.9	2.1
15	1.6	1.5	1.4	1.5	1.7	1.5	1.8	2.0	2.5	1.8	2.7	2.1
16	1.5	1.5	1.4	1.5	1.6	1.5	1.7	2.0	2.9	1.8	2.9	2.0
17	1.5	1.5	1.4	1.5	1.6	1.5	1.8	1.7	2.1	1.8	2.7	2.0
18	1.5	1.5	1.4	1.5	1.5	1.5	1.8	1.7	2.3	1.8	2.7	1.8
19	1.5	1.5	1.4	1.5	1.5	1.5	1.7	1.7	2.3	72	2.9	1.8
20	1.5	1.5	1.4	1.5	1.5	1.7	1.7	1.5	2.0	110	2.9	1.8
21	1.5	1.5	1.4	1.5	1.5	1.7	1.7	1.5	2.0	114	2.9	1.8
22	1.5	1.4	1.4	1.5	1.5	1.8	1.7	1.5	2.0	113	2.7	1.7
23	1.5	1.4	1.4	1.5	1.5	1.8	1.7	1.5	2.0	114	2.7	1.5
24	1.5	1.5	1.4	1.5	1.5	1.7	1.7	2.0	2.0	114	2.7	1.5
25	1.5	1.5	1.4	1.6	1.4	1.8	1.8	2.0	2.0	114	2.9	1.7
26	1.5	1.5	1.4	1.6	1.4	1.8	2.0	2.0	2.0	98	2.1	1.7
27	1.5	1.5	1.4	1.6	1.4	2.0	1.8	2.1	2.1	80	2.3	1.7
28	1.5	1.5	1.4	1.6	1.4	2.0	1.5	2.1	2.3	80	2.3	1.7
29	1.5	1.5	1.4	1.6	1.4	1.8	1.5	2.3	2.3	80	2.1	1.7
30	1.5	1.5	1.4	1.7	---	1.8	1.7	2.3	2.5	80	2.0	1.5
31	1.5	---	1.4	1.7	---	1.8	---	1.4	---	79	2.0	---
TOTAL	51.9	44.8	44.2	47.9	45.7	48.8	53.6	57.5	69.2	1284.2	546.6	55.6
MEAN	1.67	1.49	1.43	1.55	1.58	1.57	1.79	1.85	2.31	41.4	17.6	1.85
MAX	2.0	1.5	1.5	1.7	1.8	2.0	2.0	2.3	8.1	114	76	2.1
MIN	1.5	1.4	1.4	1.4	1.4	1.3	1.5	1.4	1.7	1.5	2.0	1.5
AC-FT	103	89	88	95	91	97	106	114	137	2550	1080	110

CAL YR 1983 TOTAL 7059.7 MEAN 19.3 MAX 171 MIN 1.3 AC-FT 14000
WTR YR 1984 TOTAL 2350.0 MEAN 6.42 MAX 114 MIN 1.3 AC-FT 4660

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 1984.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUN									
06...	1720	1.9	21.5	<.01	<.01	<.01	<.01	.020	.010
JUL									
11...	1240	1.7	23.0	<.01	<.01	<.01	<.01	.040	.010
SEP									
05...	1105	2.1	17.0	<.01	<.01	<.01	<.01	.030	.010

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼SE¼SE¼ sec.7, T.53 N., R.65 W., Crook County, Hydrologic Unit 10120201, at bridge 0.2 mi west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 25...	0840	7.5	863	6.0	290	72	26	79	2	4.3
DEC 06...	1340	4.4	1890	.5	810	210	70	150	2	7.6
APR 04...	1145	36	1360	6.5	650	170	54	63	1	6.2
MAY 08...	1700	122	1060	13.0	520	140	42	47	.9	5.4

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	120	320	5.8	.40	5.2	580	.80	12	.000	.250
DEC 06...	280	810	14	.30	9.6	1400	2.0	17	.100	.010
APR 04...	160	600	5.6	.40	7.6	1000	1.4	97	.300	.030
MAY 08...	150	450	5.8	.30	6.6	790	1.1	259	.000	.040

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
MAY 08...	1700	122	13.0	<.01	<.01	<.01	<.01	<.010	.310
JUN 06...	1530	30	20.5	<.01	<.01	<.01	<.01	<.010	.430
JUL 10...	1440	26	25.0	<.01	<.01	<.01	<.01	.050	.720
SEP 05...	1335	4.2	21.5	<.01	<.01	<.01	<.01	<.010	.510

06428050 BELLE FOURCHE RIVER BELOW HULETT, WY

LOCATION.--Lat 44°42'04", long 104°35'07", in SW¼NE¼ sec.6, T.54 N., R.64 W., Crook County, Hydrologic Unit 10120201, at bridge, 1.3 mi northeast of Hulett, and 4.7 mi downstream from Blacktail Creek.

PERIOD OF RECORD.--February 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
25...	1100	16	1210	8.5	7.0	12.1	114
DEC							
06...	1520	9.0	2100	7.7	1.0	14.4	118
JAN							
17...	1300	7.8	1900	8.2	.5	12.6	99
MAR							
01...	0830	11	1920	8.0	.5	12.5	99
APR							
04...	1415	45	1480	8.4	9.0	12.0	119
MAY							
08...	1400	151	1020	8.3	12.0	10.6	111
JUN							
06...	1230	45	1400	8.2	19.0	10.2	128
JUL							
11...	0835	45	1500	7.9	19.0	8.0	99
AUG							
07...	1530	69	1500	8.4	28.0	10.3	154
SEP							
05...	1605	9.6	1850	--	24.0	12.8	175

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
25...	330	<.10	.050	.85	.90	.090
DEC						
06...	K970	.20	.080	.62	.70	.040
JAN						
17...	260	.30	.110	.19	.30	.020
MAR						
01...	860	<.10	.050	.15	.20	.020
APR						
04...	K42	.20	.030	.57	.60	.060
MAY						
08...	250	<.10	<.010	--	1.0	.150
JUN						
06...	80	<.10	.020	.48	.50	.020
JUL						
11...	350	<.10	.050	.95	1.0	.050
AUG						
07...	160	<.10	.090	.61	.70	.050
SEP						
05...	83	<.10	.100	.20	.30	.010

K - Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN							
06...	1230	.01	<.01	<.01	<.01	<.010	.350
JUL							
11...	0835	.01	<.01	<.01	<.01	.020	4.6
SEP							
05...	1605	<.01	<.01	<.01	<.01	.010	.530

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE¼NW¼NW¼ sec.18, T.9 N., R.1 E., Butte County, Hydrologic Unit 10120202, on left bank 0.3 mi downstream from State line, 3.7 mi downstream from Oak Creek, and 11 mi northwest of Belle Fourche, SD.

DRAINAGE AREA.--3,280 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1946 to current year. Records for water year 1947 incomplete, yearly estimate published in WSP 1729.

GAGE.--Water-stage recorder. Datum of gage is 3,095.7 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period and/or period of no gage-height record, Nov. 23 to Mar. 15, which are poor. Diversions above station for irrigation of about 5,400 acres. Flow regulated by Keyhole Reservoir, usable contents, 191,600 acre-ft, 143 mi upstream since Oct. 25, 1952.

AVERAGE DISCHARGE.--38 years, 91.4 ft³/s, 66,220 acre-ft/yr; median of yearly mean discharges, 88 ft³/s, 63,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s, June 18, 1962, gage height, 15.59 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,570 ft³/s, June 19, gage height, 13.99 ft; minimum daily discharge, 5.8 ft³/s, Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	15	13	25	43	94	263	93	157	95	20
2	23	21	17	15	26	45	85	195	90	149	94	20
3	21	22	18	18	26	45	82	414	80	141	94	20
4	23	22	16	22	24	43	79	941	78	139	88	20
5	23	25	10	25	22	41	74	1050	80	135	86	20
6	24	23	11	24	23	37	68	859	87	129	84	20
7	24	22	13	23	26	39	68	877	92	124	78	19
8	23	23	10	22	24	42	70	688	87	117	73	17
9	23	24	11	20	22	48	65	550	295	108	77	17
10	23	24	12	20	21	45	66	546	2830	102	75	17
11	22	23	17	20	21	47	80	537	2350	102	64	17
12	22	22	16	18	21	45	88	505	1650	97	49	20
13	22	23	14	16	21	45	90	422	1010	93	38	21
14	22	25	13	15	23	48	94	366	1660	89	32	21
15	22	27	12	14	27	43	89	310	1120	90	30	21
16	24	29	11	14	30	47	82	281	1720	80	32	20
17	24	28	10	13	27	43	73	276	1730	70	35	20
18	24	27	8.6	14	30	206	70	253	1130	69	18	21
19	27	29	8.4	15	35	233	66	217	2690	67	16	21
20	25	27	7.8	12	40	165	67	188	1760	68	15	19
21	24	26	7.4	14	45	272	69	165	892	66	16	18
22	24	21	6.8	16	50	429	68	147	599	84	16	18
23	38	20	6.4	17	47	378	68	138	448	141	17	19
24	50	18	5.8	19	45	368	68	126	369	137	27	22
25	41	16	7.4	20	45	321	72	112	317	126	28	23
26	32	16	9.2	19	43	308	97	105	277	129	28	23
27	28	13	10	19	40	334	171	91	236	122	20	24
28	26	10	11	23	35	263	185	109	226	130	9.5	25
29	24	12	10	21	40	179	183	103	193	124	7.4	26
30	22	14	9.4	22	---	133	190	96	171	107	8.7	26
31	21	---	12	25	---	108	---	87	---	99	16	---
TOTAL	792	652	346.2	568	904	4443	2721	11017	24360	3391	1366.6	615
MEAN	25.5	21.7	11.2	18.3	31.2	143	90.7	355	812	109	44.1	20.5
MAX	50	29	18	25	50	429	190	1050	2830	157	95	26
MIN	21	10	5.8	12	21	37	65	87	78	66	7.4	17
AC-FT	1570	1290	687	1130	1790	8810	5400	21850	48320	6730	2710	1220

CAL YR 1983 TOTAL 28260.2 MEAN 77.4 MAX 460 MIN 5.8 AC-FT 56050
WTR YR 1984 TOTAL 51175.8 MEAN 140 MAX 2830 MIN 5.8 AC-FT 101500

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
26...	0815	35	1810	6.5	870	230	73	100	2	7.8
JAN										
17...	1645	13	2700	.5	1500	400	120	150	2	12
APR										
05...	0730	73	1320	6.5	610	170	46	68	1	7.2
AUG										
08...	0815	73	1470	21.5	690	190	52	120	2	8.3

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
26...	130	980	9.3	.50	4.1	1500	2.0	140	.000	.000
JAN										
17...	270	1500	12	.40	13	2400	3.2	83	.500	.000
APR										
05...	150	600	5.2	.60	7.8	990	1.4	196	.400	.050
AUG										
08...	170	720	16	.60	11	1200	1.7	240	.000	.040

06430000 MURRAY DITCH AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°02'58", in SW¼SW¼ sec.7, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on right bank 15 ft downstream from State line and 12 mi southwest of Belle Fourche, SD.

PERIOD OF RECORD.--June 1954 to current year (irrigation seasons only prior to October 1959).

GAGE.--Water-stage recorder. Altitude of gage is 3,440 ft, from topographic map.

REMARKS.--Records fair. Ditch diverts water from left bank of Redwater Creek, 2.0 mi upstream, for irrigation of about 700 acres. Flow maintained during irrigation season only.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s, July 17, 1973; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 35 ft³/s, Aug. 29, gage height, 2.78 ft; no flow for long periods.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	.00	.00	.00	.00	.00	.00	.00	.00	3.7	15	17
2	9.1	.00	.00	.00	.00	.00	.00	.00	.00	3.7	11	17
3	9.1	.00	.00	.00	.00	.00	.00	.00	.00	3.9	15	14
4	6.3	.00	.00	.00	.00	.00	.00	.00	.00	3.5	21	12
5	8.4	.00	.00	.00	.00	.00	.00	.00	.00	3.7	20	12
6	9.9	.00	.00	.00	.00	.00	.00	.00	.00	3.6	19	11
7	10	.00	.00	.00	.00	.00	.00	.00	.00	3.3	18	16
8	10	.00	.00	.00	.00	.00	.00	.00	.00	2.5	18	19
9	10	.00	.00	.00	.00	.00	.00	.00	.35	6.1	8.8	17
10	11	.00	.00	.00	.00	.00	.00	.00	.00	9.5	9.5	16
11	12	.00	.00	.00	.00	.00	.00	.00	.00	11	9.2	11
12	12	.00	.00	.00	.00	.00	.00	.00	.00	13	8.9	13
13	13	.00	.00	.00	.00	.00	.00	.00	.00	13	9.7	13
14	13	.00	.00	.00	.00	.00	.00	.00	1.7	15	11	14
15	14	.00	.00	.00	.00	.00	.00	.00	.00	20	10	14
16	13	.00	.00	.00	.00	.00	.00	.00	1.6	20	8.8	14
17	6.4	.00	.00	.00	.00	.00	.00	.00	.00	21	8.7	15
18	5.2	.00	.00	.00	.00	.00	.00	.00	.00	26	8.5	16
19	6.3	.00	.00	.00	.00	.00	.00	.00	.00	23	8.6	12
20	6.8	.00	.00	.00	.00	.00	.00	.00	2.9	21	7.1	17
21	7.9	.00	.00	.00	.00	.00	.00	.00	5.1	16	2.8	26
22	7.6	.00	.00	.00	.00	.00	.00	.00	4.9	14	.00	19
23	10	.00	.00	.00	.00	.00	.00	.00	4.5	24	.00	21
24	6.3	.00	.00	.00	.00	.00	.00	.00	3.2	26	.00	22
25	5.1	.00	.00	.00	.00	.00	.00	.00	3.7	22	.00	18
26	5.0	.00	.00	.00	.00	.00	.00	.00	3.8	19	.00	12
27	5.1	.00	.00	.00	.00	.00	.00	.00	4.0	19	.00	12
28	5.2	.00	.00	.00	.00	.00	.00	.00	2.6	20	4.1	12
29	4.8	.00	.00	.00	.00	.00	.00	.00	3.5	18	35	12
30	.00	.00	.00	.00	---	.00	.00	.00	3.4	18	32	13
31	.00	---	.00	.00	---	.00	---	.00	---	18	16	---
TOTAL	250.70	.00	.00	.00	.00	.00	.00	.00	45.25	440.5	335.70	457
MEAN	8.09	.000	.000	.000	.000	.000	.000	.000	1.51	14.2	10.8	15.2
MAX	14	.00	.00	.00	.00	.00	.00	.00	5.1	26	35	26
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	11
AC-FT	497	.00	.00	.00	.00	.00	.00	.00	90	874	666	906

CAL YR 1983 TOTAL 1782.70 MEAN 4.88 MAX 31 MIN .00 AC-FT 3540
WTR YR 1984 TOTAL 1529.15 MEAN 4.18 MAX 35 MIN .00 AC-FT 3030

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'26", long 104°02'54", in NW¼NW¼ sec.18, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on left bank 800 ft downstream from State line, 5.7 mi upstream from Crow Creek, and 12 mi southwest of Belle Fourche, SD.

DRAINAGE AREA.--471 mi².

PERIOD OF RECORD.--April 1929 to September 1931 and February 1936 to July 1937 (published as "near Beulah, WY"), June 1954 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1936-37(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft, from topographic map. Apr. 25, 1929, to Sept. 30, 1931, and Feb. 28, 1936, to July 31, 1937, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--Records good except those for winter period and/or period of no gage-height record, Dec. 17 to Mar. 5, which are poor. Large diversions for irrigation above station. Total flow passing State line may be obtained by adding flow of Murray ditch (see sta 06430000).

AVERAGE DISCHARGE.--32 years, 36.0 ft³/s, 26,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s, Aug. 22, 1973, gage height, 12.19 ft, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement at gage height 11.95 ft; no flow Aug. 13-15, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
June 10	1530	356	4.92
June 16	0500	*1,960	*10.89

Minimum daily discharge, 5.1 ft³/s, Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	40	39	17	35	35	35	43	44	56	14	6.5
2	26	40	36	19	34	35	36	45	45	55	18	6.6
3	30	41	36	20	33	35	36	47	44	55	20	5.8
4	32	41	38	20	33	35	35	48	46	53	18	5.6
5	28	41	37	21	34	35	35	52	46	51	16	5.4
6	24	41	37	20	35	35	35	58	46	52	16	5.4
7	24	41	37	20	35	35	35	56	45	54	15	6.7
8	23	40	36	20	35	34	35	59	45	53	16	13
9	24	39	36	19	35	35	35	78	55	46	26	16
10	24	39	36	18	35	35	34	105	222	40	25	17
11	24	39	36	17	35	35	33	94	190	36	26	24
12	24	41	35	16	35	35	33	76	103	32	22	24
13	24	39	35	16	35	35	33	69	63	27	21	23
14	26	40	35	15	35	35	32	62	78	23	11	22
15	25	39	35	15	35	35	32	57	88	15	13	22
16	25	39	35	13	35	34	32	53	497	18	18	22
17	31	39	33	13	35	35	32	48	159	13	19	22
18	33	39	22	13	35	35	33	46	132	8.7	23	21
19	37	39	17	12	35	36	33	46	110	11	34	25
20	34	39	18	11	35	36	34	44	84	11	33	24
21	34	39	15	14	36	36	34	44	72	11	41	11
22	33	39	12	20	36	36	34	39	69	11	46	11
23	33	38	8.8	28	36	35	30	37	63	11	45	11
24	38	38	6.0	34	36	35	31	38	67	10	44	11
25	36	38	6.4	34	36	35	35	39	61	13	44	15
26	38	39	8.4	33	36	35	43	40	61	14	44	21
27	38	38	11	33	35	35	41	42	60	12	41	21
28	37	38	13	34	34	35	39	46	59	13	31	20
29	39	38	12	34	34	35	36	48	56	12	14	20
30	40	38	12	35	---	35	37	46	57	12	6.0	20
31	40	---	16	35	---	35	---	45	---	13	5.1	---
TOTAL	947	1179	789.6	669	1013	1087	1038	1650	2767	841.7	765.1	478.0
MEAN	30.5	39.3	25.5	21.6	34.9	35.1	34.6	53.2	92.2	27.2	24.7	15.9
MAX	40	41	39	35	36	36	43	105	497	56	46	25
MIN	23	38	6.0	11	33	34	30	37	44	8.7	5.1	5.4
AC-FT	1880	2340	1570	1330	2010	2160	2060	3270	5490	1670	1520	948

CAL YR 1983 TOTAL 12917.2 MEAN 35.4 MAX 143 MIN 1.4 AC-FT 25620
WTR YR 1984 TOTAL 13224.4 MEAN 36.1 MAX 497 MIN 5.1 AC-FT 26230

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE¼SW¼ sec.15, T.31 N., R.60 W., Niobrara County, WY, Hydrologic Unit 10150002, on left bank 0.2 mi downstream from Van Tassel Creek, 0.3 mi upstream from Wyoming-Nebraska State line, and 3 mi east of Van Tassel, WY.

DRAINAGE AREA.--450 mi², approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres above station.

AVERAGE DISCHARGE.--29 years, 3.85 ft³/s, 2,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s, Aug. 16, 1977, gage height, 8.28 ft in gage well, from rating curve extended above 800 ft³/s on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s, Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft³/s, May 2, gage height, 2.71 ft, no other peak above base of 20 ft³/s; maximum gage height, 5.74 ft, Apr. 28, backwater from snow in channel; minimum daily discharge, 1.2 ft³/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.2	1.6	1.9	2.2	2.5	3.8	10	3.7	2.8	2.6	1.9
2	1.7	2.2	1.6	1.9	2.2	2.6	3.8	22	3.4	2.8	2.4	1.8
3	1.8	2.2	1.6	1.9	2.2	2.6	3.8	9.4	3.2	3.0	2.3	1.8
4	1.8	2.2	1.6	2.0	2.2	2.8	3.6	7.7	3.1	3.2	2.3	1.7
5	1.7	2.2	1.6	2.2	2.2	2.8	3.6	9.7	3.1	3.1	2.2	1.7
6	1.6	2.1	1.5	2.2	2.2	2.8	3.8	10	4.4	3.4	2.2	1.7
7	1.6	2.2	1.5	2.2	2.3	2.8	3.6	10	3.9	3.1	2.2	1.7
8	1.6	2.0	1.5	2.3	2.3	2.8	3.6	8.2	3.6	3.4	2.2	1.7
9	1.5	2.1	1.5	2.2	2.2	2.8	3.5	6.7	3.6	3.6	2.2	1.7
10	1.6	2.1	1.5	2.3	2.2	2.8	3.5	6.7	3.4	4.9	2.1	1.7
11	1.7	2.1	1.6	2.4	2.3	2.9	3.2	6.7	3.2	3.5	2.1	1.7
12	1.6	2.0	1.6	2.4	2.3	3.0	3.5	6.9	3.0	3.6	2.1	1.7
13	1.6	1.9	1.6	2.3	2.3	3.1	3.4	6.5	2.9	3.8	2.0	1.7
14	1.6	1.9	1.6	2.3	2.3	3.5	3.4	6.7	3.0	3.8	2.0	1.8
15	1.7	2.0	1.5	2.1	2.3	3.5	3.1	6.2	3.1	3.2	2.0	2.0
16	1.7	2.0	1.4	2.1	2.3	3.4	3.1	5.8	5.2	3.4	2.0	2.0
17	1.8	2.0	1.4	2.0	2.3	3.6	3.2	4.9	8.2	3.0	1.9	2.0
18	1.9	2.0	1.4	1.9	2.3	3.6	3.0	4.5	4.4	2.9	1.9	1.8
19	2.0	2.0	1.4	2.0	2.4	3.9	3.1	4.9	3.9	2.9	1.8	1.8
20	2.0	2.0	1.4	2.0	2.4	4.0	3.5	5.4	3.9	2.9	1.8	1.7
21	2.0	2.0	1.3	2.0	2.4	4.0	4.4	4.5	3.4	2.9	1.9	1.7
22	2.0	2.0	1.3	2.0	2.4	4.0	4.0	4.2	3.2	2.9	2.0	2.0
23	2.0	1.8	1.2	2.0	2.6	4.0	3.5	4.0	3.0	2.8	1.8	2.0
24	2.1	1.8	1.6	2.0	2.5	3.9	3.4	4.5	2.9	3.2	1.8	2.1
25	2.1	1.8	1.8	2.0	2.4	3.9	3.2	5.2	2.9	3.0	1.8	2.1
26	2.1	1.8	1.7	2.0	2.4	4.0	3.0	5.0	2.8	2.8	1.8	2.0
27	2.1	1.7	1.7	2.0	2.5	3.9	3.0	4.8	2.9	2.6	1.7	2.2
28	2.1	1.7	1.8	2.2	2.5	3.8	3.0	4.6	2.9	2.6	1.7	2.2
29	2.2	1.7	1.9	2.2	2.5	3.9	3.2	4.4	2.8	2.5	1.7	2.2
30	2.2	1.6	1.8	2.1	---	3.8	3.4	4.2	2.6	2.4	1.7	2.2
31	2.2	---	1.8	2.1	---	3.8	---	4.1	---	3.5	1.8	---
TOTAL	57.4	59.3	48.3	65.2	67.6	104.8	103.2	208.4	105.6	97.5	62.0	56.3
MEAN	1.85	1.98	1.56	2.10	2.33	3.38	3.44	6.72	3.52	3.15	2.00	1.88
MAX	2.2	2.2	1.9	2.4	2.6	4.0	4.4	22	8.2	4.9	2.6	2.2
MIN	1.5	1.6	1.2	1.9	2.2	2.5	3.0	4.0	2.6	2.4	1.7	1.7
AC-FT	114	118	96	129	134	208	205	413	209	193	123	112

CAL YR 1983 TOTAL 971.1 MEAN 2.66 MAX 20 MIN 1.2 AC-FT 1930
WTR YR 1984 TOTAL 1033.6 MEAN 2.83 MAX 22 MIN 1.2 AC-FT 2060

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION (REVISED).--Lat 40°56'15", long 106°20'16", in NE¼SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 1,000 ft downstream from bridge on State Highway 125, 0.7 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line. Prior to Sept. 20 at site 650 ft upstream.

DRAINAGE AREA.--1,431 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft, National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder at site 0.7 mi downstream at datum 3.36 ft lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows above station. Transbasin diversions above station to Cache la Poudre River basin.

AVERAGE DISCHARGE.--69 years, 440 ft³/s, 318,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s, June 11, 1923, gage height, 6.24 ft, site and datum then in use; maximum gage height recorded, 9.65 ft, Apr. 25, 1980, ice jam; minimum daily discharge, 19 ft³/s, July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,460 ft³/s, May 17, gage height, 7.84 ft; minimum daily, 120 ft³/s, Mar. 2-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	211	181	174	153	121	194	1200	3350	2150	1170	402
2	134	217	197	178	151	120	198	1320	3550	2420	1090	508
3	159	220	209	180	149	120	202	1110	3690	2230	937	505
4	208	220	219	183	147	120	202	1180	3660	1870	800	411
5	210	200	220	187	145	120	206	1380	3380	1600	733	350
6	203	198	219	190	144	120	215	1420	3220	1480	730	305
7	192	200	198	197	143	121	226	1290	3170	1330	852	273
8	182	217	164	201	141	123	240	1250	3190	1200	844	316
9	176	254	160	203	140	125	259	1500	3220	1290	710	305
10	184	234	169	209	139	127	280	2100	2720	1910	617	278
11	253	271	187	210	138	130	291	2870	2110	2450	554	253
12	279	289	208	210	136	133	300	4140	1550	2340	515	284
13	257	291	226	210	135	136	301	4700	1300	1560	518	382
14	240	240	228	201	133	141	310	5100	1200	1460	542	411
15	250	161	221	193	132	145	311	5640	1390	1340	531	373
16	264	244	213	181	131	148	312	5950	1780	1230	592	351
17	234	280	207	173	130	150	320	6080	2140	1160	580	402
18	227	338	201	169	129	152	340	5650	2320	1100	491	422
19	272	245	200	164	129	156	425	5180	2280	970	482	370
20	299	214	197	160	129	161	625	4520	2080	883	549	332
21	257	254	191	158	128	164	740	4090	1960	899	706	306
22	239	219	187	157	127	167	850	4480	2020	863	760	338
23	229	190	182	152	125	169	960	4810	2030	880	651	372
24	218	213	178	151	123	170	1160	4750	1930	1090	558	330
25	210	253	174	151	122	172	1520	4920	1860	1310	569	310
26	205	209	170	152	121	176	1630	5750	2030	1350	600	326
27	204	200	169	154	121	177	1500	5680	2090	1190	534	347
28	203	189	168	157	121	180	1340	4480	1990	1070	473	354
29	202	180	168	159	121	181	1230	3910	1890	1130	430	341
30	200	168	170	159	---	186	1110	3450	1850	1120	408	323
31	204	---	172	155	---	190	---	3230	---	1100	374	---
TOTAL	6728	6819	5953	5478	3883	4601	17797	113130	70950	43975	19900	10580
MEAN	217	227	192	177	134	148	593	3649	2365	1419	642	353
MAX	299	338	228	210	153	190	1630	6080	3690	2450	1170	508
MIN	134	161	160	151	121	120	194	1110	1200	863	374	253
AC-FT	13340	13530	11810	10870	7700	9130	35300	224400	140700	87220	39470	20990

CAL YR 1983 TOTAL 288632 MEAN 791 MAX 4850 MIN 86 AC-FT 572500
WTR YR 1984 TOTAL 309794 MEAN 846 MAX 6080 MIN 120 AC-FT 614500

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 25...	1005	208	256	.0	100	28	7.7	13	.6	1.2
DEC 21...	1700	191	254	.0	100	27	7.8	12	.5	1.2
FEB 01...	1015	153	272	.0	120	33	9.0	15	.6	1.7
MAR 06...	1200	120	270	.0	110	32	8.4	12	.5	1.5
APR 17...	1635	330	272	.0	100	28	8.5	15	.7	2.3
MAY 15...	0945	5640	251	11.5	94	24	8.2	16	.7	3.1
JUN 15...	1350	1430	249	18.0	100	28	7.4	14	.6	1.3
JUL 11...	1030	2380	239	16.0	100	27	7.9	14	.6	1.6
AUG 17...	0850	591	226	15.5	99	28	7.1	14	.6	1.8
SEP 19...	1550	397	194	17.5	88	24	6.7	9.6	.5	.60

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 25...	100	22	2.4	.40	9.5	140	.20	81	.000	.080
DEC 21...	110	22	2.0	.20	13	150	.21	78	.100	.060
FEB 01...	130	23	2.2	.20	15	180	.24	73	.200	.000
MAR 06...	120	22	1.8	.80	15	170	.23	54	.200	.000
APR 17...	110	30	3.8	.40	11	160	.22	147	.100	.150
MAY 15...	86	34	3.1	.20	11	150	.21	2300	.100	.080
JUN 15...	100	21	2.2	.30	9.7	140	.20	555	.100	.040
JUL 11...	110	19	2.2	.30	9.4	150	.20	947	.000	.040
AUG 17...	100	24	3.4	.50	4.8	140	.20	229	.000	.050
SEP 19...	84	15	2.0	.20	9.9	120	.16	127	.000	.020

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY 15...	0945	<.01	<.01	<.01	<.01	.010	<.010
SEP 19...	1550	<.01	<.01	<.01	<.01	<.010	<.010

06622700 NORTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°22'10", long 106°31'22", in NE¼SE¼NW¼ sec.8, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 10 ft downstream from logging road bridge, 0.7 mi downstream from Lincoln Creek, 1.6 mi upstream from South Brush Creek, and 16 mi southeast of Saratoga.

DRAINAGE AREA.--37.4 mi^2.

PERIOD OF RECORD.--May 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,020 ft, from topographic map. Prior to June 17, 1971, at site 110 ft downstream at different datum. June 17 to Sept. 21, 1971, at site 10 ft downstream at present datum.

REMARKS.--Records poor. No gage-height record Dec. 14 to Apr. 17. No diversion above station.

AVERAGE DISCHARGE.--24 years, 52.2 ft^3/s, 37,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft^3/s, June 25, 1983, gage height, 4.23 ft; minimum daily, 4.7 ft^3/s, Oct. 27-29, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 30	2300	675	3.76	June 14	2100	*763	*3.84

Minimum daily discharge, 8.6 ft^3/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	16	13	10	12	13	19	626	220	44	13
2	21	16	17	12	10	12	13	18	582	194	29	12
3	23	16	17	12	10	12	13	18	589	167	27	10
4	22	15	16	13	10	11	13	20	554	146	23	9.1
5	29	15	16	13	11	11	14	22	530	130	22	8.7
6	25	15	16	13	11	11	15	22	479	116	24	8.7
7	22	15	17	13	11	11	16	20	436	106	20	22
8	20	15	17	13	11	12	17	23	365	102	17	18
9	21	14	17	13	11	12	18	28	321	107	16	16
10	32	16	16	13	11	12	17	33	291	117	17	11
11	27	16	16	13	11	13	16	46	400	90	15	13
12	22	14	16	12	12	13	15	64	457	73	15	28
13	21	9.2	15	12	12	13	15	91	524	74	19	25
14	22	14	15	11	12	14	15	129	611	87	15	28
15	20	16	15	11	12	14	16	238	616	60	19	15
16	18	19	15	9.9	11	14	17	300	513	51	34	13
17	18	20	15	9.2	11	14	19	320	470	46	21	13
18	22	19	15	8.6	11	13	20	313	447	42	16	11
19	22	17	15	8.9	11	13	19	306	405	38	14	10
20	21	15	15	9.0	11	13	17	364	389	38	33	10
21	21	16	13	9.3	11	14	16	397	389	43	23	22
22	20	15	13	9.7	12	14	16	361	385	41	17	27
23	20	14	14	9.7	11	13	15	403	373	54	16	18
24	19	15	14	9.7	11	13	16	514	336	42	14	15
25	17	17	14	9.8	12	13	18	491	309	39	14	22
26	14	16	14	9.8	11	12	17	416	299	33	13	25
27	15	15	15	9.8	11	12	16	424	274	30	12	28
28	14	15	14	9.8	11	12	15	442	252	31	11	21
29	16	14	13	9.8	11	12	16	497	237	29	10	16
30	14	15	14	9.8	---	13	18	579	232	27	9.1	15
31	16	---	14	9.9	---	13	---	612	---	33	9.1	---
TOTAL	630	464.2	469	339.7	321	391	481	7530	12691	2406	588.2	503.5
MEAN	20.3	15.5	15.1	11.0	11.1	12.6	16.0	243	423	77.6	19.0	16.8
MAX	32	20	17	13	12	14	20	612	626	220	44	28
MIN	14	9.2	13	8.6	10	11	13	18	232	27	9.1	8.7
AC-FT	1250	921	930	674	637	776	954	14940	25170	4770	1170	999

CAL YR 1983 TOTAL 30284.0 MEAN 83.0 MAX 955 MIN 8.2 AC-FT 60070

WTR YR 1984 TOTAL 26814.6 MEAN 73.3 MAX 626 MIN 8.6 AC-FT 53190

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06622900 SOUTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°20'38", long 106°31'33", in NE¼NW¼ sec.20, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 300 ft upstream from culvert on State Highway 130, 1.6 mi upstream from North Brush Creek, and 17 mi southeast of Saratoga.

DRAINAGE AREA.--22.8 mi².

PERIOD OF RECORD.--May 1960 to September 1974, May 1976 to September 1977, May 1979 to current year (no winter records since 1972).

GAGE.--Water-stage recorder. Altitude of gage is 8,100 ft, from topographic map.

REMARKS.--Records good. Transbasin diversion 0.3 mi above station for irrigation in North Brush Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1961-72), 31.8 ft³/s, 23,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft³/s, June 10, 1965, gage height, 4.09 ft; minimum daily, 0.80 ft³/s, Aug. 15-20, 28, 29, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 383 ft³/s, June 21, gage height, 3.56 ft; minimum daily during period of operation, 3.6 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								7.0	276	210	8.9	5.5
2								7.5	253	181	8.2	5.3
3								8.0	263	157	7.9	5.0
4								8.5	250	144	7.2	4.6
5								9.0	225	138	6.7	4.5
6								10	176	125	7.0	4.5
7								11	157	121	6.7	5.3
8								11	146	116	6.2	5.0
9								12	134	136	6.2	4.6
10								19	125	132	6.7	4.3
11								31	146	101	6.5	4.3
12								46	146	87	6.5	5.5
13								94	182	83	6.5	5.5
14								138	279	83	6.5	5.5
15								179	308	72	8.1	5.0
16								225	279	62	11	4.8
17								225	247	54	7.9	4.6
18								212	228	52	7.2	4.8
19								202	221	47	7.0	4.6
20								250	231	43	8.2	4.5
21								295	283	51	7.5	5.0
22								184	317	56	7.0	5.8
23								181	295	60	7.0	4.5
24								253	289	57	6.7	4.3
25								244	269	36	6.7	4.5
26								163	253	11	6.7	4.6
27								159	234	10	6.0	4.5
28								161	231	11	6.0	4.3
29								197	247	10	5.8	4.0
30								253	241	9.2	5.3	3.6
31								276	---	8.9	5.3	---
TOTAL								4071.0	6931	2464.1	217.1	142.8
MEAN								131	231	79.5	7.00	4.76
MAX								295	317	210	11	5.8
MIN								7.0	125	8.9	5.3	3.6
AC-FT								8070	13750	4890	431	283

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY
(Hydrologic bench-mark station)

LOCATION.--Lat 41°01'25", long 106°49'27", in NE¼SW¼ sec.10, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 0.6 mi upstream from Hog Park Creek and 13 mi south of Encampment.

DRAINAGE AREA.--72.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,270 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--20 years, 117 ft³/s, 84,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft³/s, about June 13, 1965 (gage height not determined), from slope-area measurement of peak flow; minimum daily, 9.5 ft³/s, Dec. 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 30	2400	937	4.35	June 21	2300	*1,020	*4.47

Minimum daily discharge, 18 ft³/s, Mar. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	35	31	26	21	20	21	24	870	841	122	73
2	53	34	30	25	21	20	21	24	819	785	112	53
3	55	34	29	25	21	20	21	24	841	724	95	45
4	50	32	30	26	21	20	22	24	852	668	85	42
5	54	32	28	26	21	20	23	26	835	620	84	40
6	53	31	29	26	21	20	24	25	768	562	94	38
7	51	31	31	25	21	20	23	26	696	521	85	49
8	48	43	33	24	21	20	23	26	586	499	81	54
9	47	35	35	23	21	20	23	34	521	551	71	50
10	64	38	37	22	21	20	24	50	483	575	70	40
11	58	37	38	22	21	20	22	83	556	402	63	51
12	46	35	39	22	21	19	21	131	595	348	63	102
13	42	33	37	21	21	20	20	176	672	338	61	131
14	45	33	37	22	21	20	20	225	816	331	61	71
15	44	44	37	21	21	20	21	294	893	274	60	51
16	41	48	37	21	19	19	22	403	888	240	66	67
17	42	44	37	21	20	18	25	453	888	219	59	60
18	63	36	35	20	20	18	31	434	876	194	58	48
19	54	35	35	21	20	20	32	404	870	178	63	45
20	44	36	35	21	20	22	33	482	876	168	121	53
21	43	33	31	22	20	22	32	570	894	164	87	97
22	40	31	29	22	20	23	30	610	912	165	66	94
23	40	30	28	22	20	23	29	694	894	145	63	59
24	40	34	28	22	20	23	28	799	882	143	58	64
25	32	39	30	22	20	23	27	741	888	133	57	83
26	38	35	31	22	20	22	26	621	858	136	55	86
27	35	32	31	22	20	23	24	650	858	121	49	83
28	33	31	28	22	20	22	22	657	846	138	48	65
29	35	30	26	21	20	23	23	705	841	127	44	54
30	31	29	26	21	---	24	23	811	846	117	42	54
31	34	---	27	21	---	24	---	852	---	136	48	---
TOTAL	1392	1050	995	699	594	648	736	11078	23920	10563	2191	1902
MEAN	44.9	35.0	32.1	22.5	20.5	20.9	24.5	357	797	341	70.7	63.4
MAX	64	48	39	26	21	24	33	852	912	841	122	131
MIN	31	29	26	20	19	18	20	24	483	117	42	38
AC-FT	2760	2080	1970	1390	1180	1290	1460	21970	47450	20950	4350	3770

CAL YR 1983 TOTAL 54145 MEAN 148 MAX 1360 MIN 19 AC-FT 107400
WTR YR 1984 TOTAL 55768 MEAN 152 MAX 912 MIN 18 AC-FT 110600

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 26...	1515	35	72	7.4	.5	10.7	100	K6	K3	25	7.4	1.6
JAN 10...	1600	23	69	7.7	.0	10.9	101	K1	37	30	9.0	1.8
MAY 20...	1610	455	43	7.5	5.5	9.3	101	K1	30	18	5.4	1.1
JUL 11...	1620	382	37	7.6	12.0	8.1	102	K2	28	15	4.5	.80

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT 26...	2.1	.2	.80	29	3.9	.50	<.10	11	46	45	.06
JAN 10...	2.6	.2	.70	32	4.3	.50	<.10	12	46	50	.06
MAY 20...	1.6	.2	.40	15	6.5	.60	<.10	8.4	42	34	.06
JUL 11...	1.3	.2	.60	12	4.3	.20	<.10	6.9	19	26	.03

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 26...	4.3	<.10	.020	.03	.60	.010	.030	.040	1	.09	58
JAN 10...	2.9	<.10	.040	.05	<.20	.010	.010	<.010	1	.06	70
MAY 20...	52	<.10	.060	.08	.20	.030	.020	.020	22	27	80
JUL 11...	20	.15	.030	.04	<.20	.080	.020	.020	1	1.0	55

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT											
26...	1515	20	<1	16	<.5	<1	<1	<3	1	66	1
MAY											
20...	1610	120	<1	17	<1	<1	<1	<3	1	160	<1

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
26...	6	2	<.1	<10	5	<1	1	38	<6	6
MAY										
20...	<4	16	<.1	<10	3	<1	<1	29	<6	110

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRACTION (UG/L)
AUG									
15...	1400	1.0	<.4	1.5	1.3	<.4	<.4	.05	.17

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼NW¼ sec.3, T.15 N., R.83 W., Carbon County, Hydrologic Unit 10180002, on left bank 0.5 mi upstream from mouth and 8.0 mi northeast of Encampment.

DRAINAGE AREA.--265 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,970 ft, from topographic map. Prior to June 28, 1961, water-stage recorder at site 660 ft upstream at datum 2.00 ft higher.

REMARKS.--Records good except those for winter period, which are poor. Five small reservoirs above station for irrigation, total capacity, about 400 acre-ft. Slight regulation by Hog Park Creek Reservoir, capacity, about 2,970 acre-ft. Diversions for irrigation of about 8,800 acres above station. Transbasin diversion above station into Hog Park Creek (tributary to Encampment River) from North Fork Little Snake River for municipal, industrial, and irrigation uses began September 1964.

AVERAGE DISCHARGE.--44 years, 247 ft^3/s, 179,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft^3/s, June 1, 1943, gage height, 10.25 ft, present datum; maximum gage height, 10.33 ft, June 4, 1952, present datum; minimum daily discharge, 5.2 ft^3/s, Aug. 15, 16, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 24	0430	*2,660	*5.99	June 16	0530	2,310	5.65

Minimum daily discharge, 53 ft^3/s, Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	118	91	81	70	63	70	143	2370	1570	283	99
2	75	112	91	76	69	66	70	147	2210	1380	212	104
3	128	112	88	78	69	66	66	140	2160	1260	183	86
4	115	110	86	82	68	64	63	142	2230	1160	164	76
5	113	107	84	83	67	63	73	156	2120	1060	156	71
6	110	107	83	84	68	65	86	145	1960	954	158	69
7	114	104	86	86	68	66	99	140	1880	876	150	78
8	112	134	89	87	68	68	104	134	1540	855	144	96
9	109	119	90	86	68	68	112	155	1300	999	130	92
10	135	102	95	83	68	69	99	235	1140	989	130	82
11	143	109	97	80	67	71	101	385	1150	710	120	78
12	116	110	98	76	66	72	90	569	1230	580	116	169
13	100	116	95	74	67	70	88	809	1290	522	114	181
14	98	101	91	72	68	65	87	1070	1640	557	113	144
15	109	91	86	70	67	60	104	1290	1980	465	103	106
16	106	100	86	69	66	67	128	1640	2160	417	114	95
17	111	110	86	68	67	64	168	1780	2080	380	119	115
18	129	115	84	67	67	61	205	1750	1970	340	108	95
19	165	108	85	68	67	63	192	1530	1870	292	126	87
20	131	104	81	69	65	67	181	1660	1860	249	167	98
21	125	103	78	70	66	73	153	1940	1840	240	175	128
22	122	100	75	72	68	78	150	2040	1970	239	128	215
23	123	93	76	73	66	69	151	2180	1880	233	121	130
24	128	98	75	74	66	67	152	2530	1770	224	110	118
25	113	106	77	76	66	72	160	2500	1760	218	104	155
26	116	103	80	75	65	67	150	2060	1630	220	98	158
27	114	99	82	74	65	68	138	1920	1600	200	91	190
28	114	96	81	74	64	68	125	1840	1510	245	83	154
29	112	92	78	75	62	63	128	1840	1500	222	79	133
30	108	88	80	73	---	67	135	2060	1540	198	75	126
31	120	---	84	70	---	68	---	2280	---	212	74	---
TOTAL	3567	3167	2638	2345	1938	2078	3628	37210	53140	18066	4048	3528
MEAN	115	106	85.1	75.6	66.8	67.0	121	1200	1771	583	131	118
MAX	165	134	98	87	70	78	205	2530	2370	1570	283	215
MIN	53	88	75	67	62	60	63	134	1140	198	74	69
AC-FT	7080	6280	5230	4650	3840	4120	7200	73810	105400	35830	8030	7000

CAL YR 1983 TOTAL 125459 MEAN 344 MAX 2690 MIN 49 AC-FT 248800
WTR YR 1984 TOTAL 135353 MEAN 370 MAX 2530 MIN 53 AC-FT 268500

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 25...	1730	103	288	6.0	110	34	5.1	16	.7	1.8
DEC 20...	1345	88	298	-.5	120	40	5.4	15	.6	1.5
JAN 31...	1400	83	328	.0	120	39	6.3	19	.8	2.7
MAR 06...	1545	89	295	.0	110	37	4.9	15	.6	2.3
APR 17...	1005	130	312	4.0	110	33	6.7	18	.8	3.5
MAY 15...	1430	1180	78	7.5	36	11	2.0	3.3	.3	.90
JUN 15...	1010	2050	62	6.5	21	8.5	.00	2.0	.2	.00
JUL 10...	1910	874	126	14.5	53	16	3.2	6.9	.4	.90
AUG 17...	1130	128	317	16.0	140	44	6.3	19	.7	2.6
SEP 20...	0800	95	366	11.0	160	49	8.2	22	.8	2.6

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	92	40	8.7	.30	18	180	.24	50	.100	.000
DEC 20...	97	43	7.5	.20	23	190	.26	46	.200	.040
JAN 31...	97	50	9.3	.30	25	210	.29	47	.300	.030
MAR 06...	86	43	7.9	.70	23	190	.25	45	.200	.000
APR 17...	97	44	8.6	.50	18	190	.26	67	.200	.100
MAY 15...	30	7.0	1.7	.10	9.8	54	.07	171	.100	.040
JUN 15...	22	3.1	1.4	.20	8.0	36	.05	201	.100	.000
JUL 10...	49	13	1.4	.10	11	82	.11	193	.400	.010
AUG 17...	120	41	7.7	.30	26	220	.30	76	.000	.020
SEP 20...	130	57	9.1	.30	31	260	.35	66	.100	.020

412117106425301 NORTH PLATTE RIVER AT HIGHWAY 130, NEAR SARAGOTA, WY

LOCATION.--Lat 41°21'17", long 106°42'53", in SW¼SE¼NE¼ sec.16, T.16 N., R.83 W., Carbon County, Hydrologic Unit 10180002, at bridge on Highway 130, 1.2 mi downstream from Cow Creek and 30.2 mi south of Saratoga.

PERIOD OF RECORD.--May to September 1984.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
15...	1645	5900	13.0	<.01	<.01	<.01	<.01	<.010	.010
AUG									
16...	0930	1000	17.0	<.01	<.01	<.01	<.01	.010	.010
SEP									
20...	1430	628	17.0	<.01	<.01	<.01	<.01	<.010	.020

06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

LOCATION.--Lat 41°35'10", long 106°36'37", in SW¼SW¼ sec.27, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 235 ft downstream from Lone Tree Creek, 1,000 ft upstream from Brush Creek, 12 mi southwest of Elk Mountain, and 14 mi northeast of Saratoga.

DRAINAGE AREA.--91.5 mi^2. Area at mouth, 279 mi^2.

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,230 ft, from topographic map. Prior to Oct. 6, 1966, 15 ft downstream at present datum.

REMARKS.--Records good except those for winter period and May 12-14, which are poor. Diversions for irrigation of about 6,300 acres above station. Diversion to Kerr ditch 7.5 mi upstream.

AVERAGE DISCHARGE.--27 years, 43.4 ft^3/s, 31,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft^3/s, May 12, 1984, gage height, 9.12 ft, from floodmarks, from rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow; minimum daily discharge, 1.5 ft^3/s, Sept. 11, 12, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1938, 9.12 ft, May 12, 1984, from floodmarks, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 12	a2200	b*4,660	b*9.12	May 24	0200	972	3.93
May 21	0130	1,070	4.22	July 10	0200	367	2.12

a-About.
b-From floodmarks from rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow.

Minimum daily discharge, 12 ft^3/s, Nov. 23, Jan. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	16	18	17	16	21	53	561	114	45	25
2	19	17	15	17	17	17	21	53	444	80	37	19
3	25	18	14	17	16	17	20	59	435	62	31	17
4	26	17	14	18	16	16	21	60	456	56	29	16
5	21	16	13	19	16	15	22	65	448	50	38	14
6	19	16	15	19	16	16	23	64	394	44	49	13
7	17	16	15	19	16	17	25	63	474	40	31	20
8	16	22	17	18	16	18	28	68	390	53	26	19
9	16	23	18	17	16	19	30	109	323	93	26	15
10	26	22	20	17	17	18	29	234	249	209	24	14
11	23	21	19	16	16	19	27	602	220	88	20	14
12	20	19	17	15	16	18	27	1780	193	59	20	24
13	18	20	15	15	16	18	27	1400	181	60	19	25
14	18	17	14	14	16	20	29	900	169	64	19	26
15	20	20	14	14	16	19	30	1040	202	52	22	20
16	18	21	15	13	15	18	34	1020	233	47	44	19
17	18	22	14	12	15	19	39	734	215	47	37	17
18	21	21	13	13	14	19	45	636	200	45	22	16
19	28	20	14	13	14	18	51	554	192	40	19	14
20	20	18	15	13	14	19	66	695	173	42	35	16
21	19	15	15	13	15	19	69	867	165	56	29	19
22	17	13	15	14	15	20	62	596	148	47	21	22
23	14	12	15	13	15	19	60	613	131	47	20	18
24	14	13	16	13	16	19	72	855	122	50	23	16
25	15	14	17	14	15	19	80	704	112	47	19	25
26	15	15	18	14	15	19	76	470	122	42	19	27
27	15	15	19	14	15	19	60	490	114	37	17	25
28	16	14	18	15	15	19	56	443	92	44	15	21
29	15	13	18	15	16	19	54	462	83	38	14	18
30	15	15	18	15	---	19	54	518	81	36	14	17
31	16	---	18	16	---	20	---	540	---	36	16	---
TOTAL	576	521	494	473	452	567	1258	16747	7322	1825	800	571
MEAN	18.6	17.4	15.9	15.3	15.6	18.3	41.9	540	244	58.9	25.8	19.0
MAX	28	23	20	19	17	20	80	1780	561	209	49	27
MIN	14	12	13	12	14	15	20	53	81	36	14	13
AC-FT	1140	1030	980	938	897	1120	2500	33220	14520	3620	1590	1130

CAL YR 1983 TOTAL 28316.2 MEAN 77.6 MAX 563 MIN 9.0 AC-FT 56170
WTR YR 1984 TOTAL 31606.0 MEAN 86.4 MAX 1780 MIN 12 AC-FT 62690

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY

LOCATION.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., Carbon County, Hydrologic Unit 10180002, on left bank 6.5 mi northeast of Sinclair and 14 mi upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft.

DRAINAGE AREA.--4,175 mi^2, of which 114 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year. Prior to October 1943, published as "near Parco."

REVISED RECORDS.--WDR-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,400.75 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 215,000 acres above station. Transbasin diversions above station.

COOPERATION.--Five discharge measurements furnished by Bureau of Reclamation, and eight discharge measurements furnished by Wyoming State Engineer's office.

AVERAGE DISCHARGE.--45 years, 1,151 ft^3/s, 833,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s, May 26, 1984, gage height, 10.84 ft; minimum daily, 70 ft^3/s, Sept. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,000 ft^3/s, May 26, gage height, 10.84 ft; minimum daily, 350 ft^3/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	405	601	490	468	423	430	675	1580	11200	5340	2530	728
2	420	627	524	455	414	425	680	1770	11700	5410	2640	762
3	457	618	550	468	408	427	660	2020	11400	5200	2160	868
4	608	618	542	483	410	425	625	2120	11200	4700	1860	899
5	636	618	515	500	407	420	610	2150	11500	4360	1600	821
6	636	610	475	518	410	430	690	2380	10800	3810	1540	699
7	636	593	430	525	410	427	800	2380	10100	3380	1590	628
8	610	601	460	540	404	440	1130	2200	9690	3100	1590	627
9	584	688	485	525	410	470	1220	2120	8630	3020	1550	618
10	601	707	518	505	410	495	1090	2680	7880	3670	1360	644
11	610	680	515	485	408	545	961	3960	6870	4240	1260	618
12	688	716	525	464	408	600	880	5750	6110	4130	1150	610
13	716	790	500	445	410	650	793	8090	5470	3870	1090	725
14	716	781	483	430	408	710	820	10100	5480	3180	1030	877
15	671	726	465	418	410	760	839	11300	6140	3000	1080	970
16	662	602	437	392	413	820	939	12000	6900	2630	1170	860
17	671	593	418	375	417	870	1180	13300	7460	2380	1200	782
18	671	670	382	362	413	840	1500	13900	7740	2210	1260	781
19	671	790	392	350	410	800	1800	13700	7650	2100	1080	800
20	780	762	385	360	410	770	1860	12400	7480	1900	996	772
21	772	642	378	380	408	765	1790	12300	7160	1760	1090	725
22	762	550	404	387	408	785	1560	12900	6850	1750	1220	734
23	699	464	424	390	403	810	1510	12600	7070	1760	1270	897
24	671	485	448	402	405	760	1670	12800	6680	1900	1230	830
25	662	498	460	415	403	740	2090	14000	6300	2210	1080	829
26	636	505	480	412	408	720	2600	14700	5990	2260	1000	859
27	618	547	470	418	417	690	2200	13500	6010	2230	1010	859
28	618	580	480	412	427	670	1740	13100	5820	2120	971	899
29	610	525	490	410	430	650	1580	12100	5380	2110	860	850
30	610	470	497	413	---	630	1580	10900	5130	2120	782	820
31	601	---	483	415	---	660	---	10800	---	2300	726	---
TOTAL	19708	18657	14505	13522	11922	19634	38072	265600	233790	94150	40975	23391
MEAN	636	622	468	436	411	633	1269	8568	7793	3037	1322	780
MAX	780	790	550	540	430	870	2600	14700	11700	5410	2640	970
MIN	405	464	378	350	403	420	610	1580	5130	1750	726	610
AC-FT	39090	37010	28770	26820	23650	38940	75520	526800	463700	186700	81270	46400

CAL YR 1983 TOTAL 744448 MEAN 2040 MAX 12800 MIN 310 AC-FT 1477000
WTR YR 1984 TOTAL 793926 MEAN 2169 MAX 14700 MIN 350 AC-FT 1575000

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1978 to October 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
27...	1430	646	431	7.9	8.0	10.0	107	K11	160	46
NOV										
17...	1430	570	--	--	1.5	--	--	--	190	51
DEC										
22...	1030	404	--	--	-1.0	--	--	--	180	48
FEB										
02...	1125	418	479	7.3	.0	10.2	88	K10	200	56
MAR										
05...	1400	430	--	--	.0	--	--	--	200	55
APR										
16...	1240	900	--	--	8.0	--	--	--	250	61
MAY										
16...	1700	11800	275	7.9	10.0	7.5	85	23	110	27
JUN										
16...	1210	6580	--	--	14.0	--	--	--	83	23
JUL										
12...	1330	4210	302	8.3	19.5	7.0	97	140	140	37
AUG										
14...	1300	1050	--	--	21.0	--	--	--	170	47

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT									
27...	12	24	.8	1.5	120	83	8.1	.40	13
NOV									
17...	15	28	.9	1.3	130	100	9.1	.20	15
DEC									
22...	14	27	.9	2.1	140	94	7.5	.30	17
FEB									
02...	15	27	.9	3.0	140	96	6.0	.30	19
MAR									
05...	16	32	1	2.7	130	110	23	.80	19
APR									
16...	24	47	1	4.4	150	190	16	.40	14
MAY									
16...	9.7	16	.7	3.1	86	50	3.0	.20	12
JUN									
16...	6.2	11	.5	.60	73	36	2.6	.20	10
JUL									
12...	11	17	.7	1.6	110	52	13	.10	13
AUG									
14...	13	26	.9	2.1	130	80	13	.50	12

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 27...	260	.35	453	<.10	.00	.020	.78	.80	.400
NOV 17...	300	.40	458	--	.00	--	--	--	.000
DEC 22...	290	.40	321	--	.00	--	--	--	.000
FEB 02...	310	.42	346	.20	.60	.020	.18	.20	.000
MAR 05...	340	.46	391	--	.20	--	--	--	.020
APR 16...	450	.61	1090	--	<.10	--	--	--	.130
MAY 16...	170	.23	5500	.10	.30	.040	.26	.30	.740
JUN 16...	130	.18	2370	--	.00	--	--	--	.030
JUL 12...	210	.29	2390	<.10	.00	.050	.55	.60	.030
AUG 14...	270	.37	770	--	.00	--	--	--	.130

06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY

LOCATION.--Lat 41°35'07", long 106°13'20", in SE¼SW¼ sec.25, T.19 N., R.79 W., Carbon County, Hydrologic Unit 10180004, on left bank 200 ft upstream from point of diversion to King Canyon Canal, 0.4 mi downstream from Overland Creek, 1.0 mi southwest of Arlington, and 6.9 mi southwest of McFadden.

DRAINAGE AREA.--62.9 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,790 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Minor regulation by Sand Lake, capacity, 1,100 acre-ft on Deep Creek, 12 mi upstream. No diversion above station.

AVERAGE DISCHARGE.--30 years (water years 1955-84) 84.5 ft^3/s, 61,220 acre-ft/yr, includes records for station 06632500 Rock Creek at Arlington for water years 1955-65, adjusted for diversions by King Canyon Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft^3/s, June 19, 1971, gage height, 5.83 ft; maximum gage height, 5.92 ft, June 24, 1983; minimum daily discharge, 5.5 ft^3/s, Dec. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 24	2100	821	4.02	June 14	2030	*906	*4.16
May 30	2030	900	4.15				

Minimum daily discharge, 9.5 ft^3/s, Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	17	15	16	14	11	15	679	366	105	32
2	21	18	17	14	16	14	10	15	591	326	76	32
3	26	19	16	13	16	14	10	16	610	292	63	30
4	24	18	14	14	16	14	10	16	560	257	57	28
5	28	19	14	14	16	14	10	17	540	235	68	27
6	28	18	15	14	16	14	10	17	456	219	81	25
7	24	18	15	13	16	13	9.5	16	396	210	55	41
8	21	20	16	14	16	13	10	16	362	213	47	37
9	21	16	16	14	17	13	11	21	322	257	44	34
10	31	23	16	13	16	13	11	38	311	294	42	27
11	34	21	16	14	15	13	11	63	398	189	37	26
12	28	20	16	14	15	13	11	90	416	159	37	31
13	26	20	15	15	15	12	10	126	504	159	43	32
14	26	19	15	15	15	12	11	159	665	188	36	41
15	24	19	16	14	15	12	12	266	659	141	53	29
16	21	20	16	13	14	12	14	334	590	123	78	27
17	23	19	16	12	14	12	15	362	545	112	47	31
18	26	18	16	11	14	12	20	358	537	101	38	27
19	27	17	15	10	14	12	18	346	540	89	34	24
20	24	16	15	9.6	14	12	18	411	511	83	38	22
21	27	15	15	10	14	12	17	473	502	87	37	25
22	26	14	15	10	14	13	16	400	487	95	33	40
23	25	15	15	11	14	12	15	461	450	132	33	29
24	24	16	14	11	14	12	16	672	433	172	30	26
25	16	17	14	12	14	13	17	616	404	131	29	30
26	22	16	13	13	14	13	16	462	399	97	27	32
27	21	15	13	12	14	12	14	442	382	71	25	38
28	20	15	14	13	14	12	13	438	369	73	23	31
29	20	16	14	14	14	12	14	515	362	87	22	25
30	18	16	13	14	---	11	15	677	367	109	21	25
31	20	---	13	15	---	11	---	702	---	117	21	---
TOTAL	741	532	465	400.6	432	391	395.5	8560	14347	5184	1380	904
MEAN	23.9	17.7	15.0	12.9	14.9	12.6	13.2	276	478	167	44.5	30.1
MAX	34	23	17	15	17	14	20	702	679	366	105	41
MIN	16	14	13	9.6	14	11	9.5	15	311	71	21	22
AC-FT	1470	1060	922	795	857	776	784	16980	28460	10280	2740	1790

CAL YR 1983 TOTAL 48411.0 MEAN 133 MAX 1580 MIN 8.2 AC-FT 96020
WTR YR 1984 TOTAL 33732.1 MEAN 92.2 MAX 702 MIN 9.5 AC-FT 66910

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'12", long 106°09'38", in NW¼SW¼NE¼ sec.22, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 1.6 mi upstream from State Highway 487, 3.2 mi downstream from Muddy Creek, and 4.3 mi northeast of Medicine Bow.

DRAINAGE AREA.--963 mi², of which 54 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to September 1984 (discontinued). Station replaced by 06634620 "at Boles Spring."

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft, from topographic map.

REMARKS.--Records fair except those for winter period and those for periods of no gage-height record, Nov. 22 to Mar. 13, Mar. 18 to Apr. 9, May 29 to June 13, July 2-8, Aug. 11, 12, which are poor. Diversions for irrigation of about 5,200 acres above station.

AVERAGE DISCHARGE.--11 years, 65.1 ft³/s, 47,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft³/s, May 17, 1978, from slope-area measurement of peak flow, gage height, 14.10 ft, from floodmark in gage well; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 18	1430	619	5.54	May 13	2130	*1,710	*7.19
Apr. 25	2100	706	5.38	July 25	1430	686	5.20
May 6	0100	816	5.50	July 31	1000	643	5.08

Minimum daily discharge, 1.3 ft³/s, Jan. 20-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	15	6.8	3.7	1.8	5.6	23	247	249	24	180	17
2	8.3	16	7.1	3.4	1.9	6.1	24	361	260	22	128	13
3	9.1	16	7.4	3.5	2.1	6.5	26	546	262	20	166	11
4	8.9	16	7.4	3.7	2.2	6.1	30	713	231	19	86	10
5	8.9	16	7.1	4.0	2.5	5.7	41	731	202	17	80	9.4
6	8.8	16	6.2	4.2	2.9	5.4	60	719	188	16	99	8.3
7	8.8	15	6.0	4.4	3.5	5.7	70	702	178	14	66	8.9
8	9.9	11	6.2	4.7	3.3	6.2	83	575	164	13	40	7.8
9	9.4	12	6.4	4.8	3.1	6.9	102	530	154	13	31	7.2
10	41	13	6.8	4.5	3.4	7.8	84	795	142	15	26	7.2
11	30	14	6.8	4.2	3.6	8.4	68	1010	131	13	24	8.3
12	16	13	6.4	3.9	3.6	9.1	54	1050	122	12	21	11
13	12	12	6.1	3.6	3.8	10	46	1380	115	12	19	12
14	12	11	5.8	3.2	4.2	36	43	1250	113	12	17	14
15	12	10	5.6	2.8	4.0	32	53	1320	101	10	17	15
16	12	12	5.4	2.4	3.9	29	61	1320	87	9.3	18	14
17	13	13	5.1	1.9	3.9	29	86	1130	77	8.3	35	14
18	15	14	4.8	1.7	3.9	28	386	934	73	7.2	45	12
19	16	12	4.7	1.5	3.9	26	429	791	69	7.8	44	12
20	15	11	4.2	1.3	3.9	23	359	687	69	10	67	11
21	16	9.9	3.8	1.3	4.2	24	292	682	59	9.4	55	10
22	16	8.5	3.3	1.3	4.4	26	252	836	51	8.8	43	9.4
23	15	7.4	3.4	1.3	4.6	32	341	645	44	49	34	8.5
24	15	9.2	3.7	1.3	5.0	28	470	564	40	213	29	10
25	15	9.9	3.9	1.3	5.0	24	580	567	36	409	26	15
26	14	11	4.3	1.3	4.8	22	559	570	35	339	29	17
27	14	9.2	4.5	1.3	4.5	20	354	472	32	194	33	16
28	13	8.2	4.0	1.4	4.8	20	247	413	30	128	22	16
29	14	7.2	3.6	1.4	5.2	21	195	352	28	84	18	15
30	15	6.5	3.6	1.5	---	21	192	288	24	78	16	16
31	15	---	4.0	1.6	---	22	---	261	---	347	18	---
TOTAL	435.6	355.0	164.4	82.4	107.9	552.5	5610	22441	3366	2133.8	1532	356.0
MEAN	14.1	11.8	5.30	2.66	3.72	17.8	187	724	112	68.8	49.4	11.9
MAX	41	16	7.4	4.8	5.2	36	580	1380	262	409	180	17
MIN	7.5	6.5	3.3	1.3	1.8	5.4	23	247	24	7.2	16	7.2
AC-FT	864	704	326	163	214	1100	11130	44510	6680	4230	3040	706

CAL YR 1983 TOTAL 55586.43 MEAN 152 MAX 3170 MIN .52 AC-FT 110300
WTR YR 1984 TOTAL 37136.60 MEAN 101 MAX 1380 MIN 1.3 AC-FT 73660

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to October 1984 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 24...	1215	16	638	7.0	260	70	20	48	1	4.0
JAN 30...	1410	1.5	1120	.0	430	120	32	94	2	4.1
APR 19...	0930	388	726	.5	230	52	24	64	2	4.5
JUL 09...	1720	12	1080	21.0	420	110	35	84	2	4.5

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 24...	150	190	8.1	.40	13	440	.60	19	.000	.000
JAN 30...	220	400	16	.30	15	810	1.1	3.3	.400	.080
APR 19...	97	260	7.5	.40	5.3	480	.65	499	.200	.380
JUL 09...	170	400	13	.20	13	760	1.0	25	.000	.000

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 24...	1215	65	6.4	8.1	9.2	7.0	8.1	.17	41	44	4.4
JAN 30...	1410	120	.9	16	5.7	14	5.2	.26	96	82	.6
APR 19...	0930	13	48	10	31	8.7	27	.19	9.4	8.8	33
JUL 09...	1720	68	<.4	15	3.6	13	3.3	.58	48	--	--

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT										
01...	1520	15	773	290	80	22	55	1	3.7	160

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT									
01...	250	8.9	.30	12	530	.72	21	.10	.070

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
OCT									
01...	1520	47	2.1	9.8	7.3	8.4	6.4	.39	36

06634620 LITTLE MEDICINE BOW RIVER AT BOLES SPRING, NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'40", long 106°12'31", in NW¼SW¼SW¼ sec.17, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 10 ft downstream from Boles Spring, 3.9 mi downstream from State Highway 487, 8.7 mi downstream from Muddy Creek, and 4.3 mi north of Medicine Bow.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--May to September 1984. Records collected October 1973 to September 1984 at site 5.5 mi upstream, Little Medicine Bow River near Medicine Bow, are equivalent except for low flows.

GAGE.--Water-stage recorder. Altitude of gage is 6,570 ft, from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 5,200 acres above station.

EXTREMES FOR CURRENT YEAR.--Peak discharges, during period of operation, above base of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 13	1630	*1,460	*6.65	July 31	1230	602	4.39
July 25	1600	635	4.49				

Minimum daily discharge, 8.4 ft³/s, July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								246	254	27	180	18
2								368	260	24	125	13
3								540	260	21	162	12
4								705	230	20	98	12
5								725	203	18	74	12
6								705	188	17	105	11
7								695	175	14	78	11
8								565	164	13	50	11
9								535	152	14	37	9.5
10								790	138	18	30	9.4
11								952	133	16	24	9.9
12								996	127	13	21	12
13								1320	121	12	19	12
14								1220	118	14	17	13
15								1320	102	12	16	14
16								1270	92	10	19	15
17								1120	81	9.2	31	15
18								927	73	8.4	39	13
19								805	69	8.5	40	13
20								702	67	12	63	12
21								673	65	9.5	54	11
22								792	56	10	40	11
23								655	52	24	34	9.7
24								554	46	147	28	11
25								548	42	371	24	14
26								562	40	321	26	18
27								470	36	185	36	17
28								418	32	136	23	16
29								349	31	87	18	17
30								311	27	69	15	17
31								278	---	321	17	---
TOTAL								22116	3434	1981.6	1543	389.5
MEAN								713	114	63.9	49.8	13.0
MAX								1320	260	371	180	18
MIN								246	27	8.4	15	9.4
AC-FT								43870	6810	3930	3060	773

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY

LOCATION.--Lat 42°00'35", long 106°30'45", in SE¼NW¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 25 ft upstream from county highway bridge, 2.0 mi upstream from Troublesome Creek, 9.0 mi upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft, and 10 mi north of Hanna.

DRAINAGE AREA.--2,338 mi^2, of which 396 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 956: 1941(M). WSP 1440: 1940(M), 1941. WSP 1710: Drainage area. WDR WY-83-1: 1943.

GAGE.--Water-stage recorder. Datum of gage is 6,415.40 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Many small reservoirs above station, total capacity, about 6,000 acre-ft, for irrigation. Diversions for irrigation of about 43,000 acres above station.

COOPERATION.--Ten discharge measurements furnished by cooperating agencies.

AVERAGE DISCHARGE.--45 years, 190 ft^3/s, 137,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,010 ft^3/s, May 12, 1973, gage height, 6.74 ft; minimum daily, 1.1 ft^3/s, Sept. 7-14, 1959, Aug. 7, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,850 ft^3/s, May 15, gage height, 4.72 ft; minimum daily, 35 ft^3/s, Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	80	65	55	43	68	225	668	1700	473	530	68
2	50	77	68	52	44	72	182	727	1750	499	401	64
3	50	77	70	54	45	75	182	993	1860	525	406	60
4	54	77	70	56	46	74	174	1200	1850	474	389	56
5	58	77	67	58	48	71	174	1340	1780	413	305	56
6	70	75	63	61	54	69	224	1340	1750	357	266	54
7	70	75	59	65	64	73	276	1270	1630	305	252	52
8	68	82	64	67	62	80	304	1150	1450	253	226	52
9	68	73	70	68	60	89	360	1030	1320	226	197	50
10	139	71	74	65	63	101	375	1080	1110	239	171	46
11	88	82	72	64	63	106	441	1500	928	377	153	52
12	103	94	72	62	63	110	479	1790	822	504	136	62
13	90	97	67	61	66	123	416	2140	805	368	130	66
14	92	95	64	60	68	171	401	2660	813	300	112	64
15	92	85	61	57	66	240	517	2670	821	256	112	64
16	90	71	49	54	64	280	692	2700	933	243	163	70
17	85	69	55	52	64	270	790	2670	1070	234	156	80
18	85	76	59	49	63	250	966	2590	1130	221	124	82
19	85	69	61	47	62	228	1440	2530	1110	197	136	80
20	87	60	58	49	60	223	1450	2370	1080	186	150	75
21	90	51	55	51	61	242	1370	2240	1010	167	153	68
22	95	47	52	52	62	260	1170	2210	927	339	136	66
23	90	50	52	54	64	250	1040	2430	885	395	192	60
24	87	60	52	51	67	260	1160	2290	844	601	160	60
25	87	70	54	38	66	250	1340	2150	758	519	115	77
26	85	77	58	35	64	234	1530	2280	689	770	106	82
27	85	72	60	37	61	221	1380	2410	646	851	100	85
28	85	69	58	40	62	209	1040	2170	609	860	100	92
29	82	67	52	41	64	211	742	1930	566	684	85	103
30	82	63	52	42	---	218	616	1830	506	398	75	112
31	80	---	58	42	---	227	---	1730	---	372	68	---
TOTAL	2518	2188	1891	1639	1739	5355	21456	58088	33152	12606	5805	2058
MEAN	81.2	72.9	61.0	52.9	60.0	173	715	1874	1105	407	187	68.6
MAX	139	97	74	68	68	280	1530	2700	1860	860	530	112
MIN	46	47	49	35	43	68	174	668	506	167	68	46
AC-FT	4990	4340	3750	3250	3450	10620	42560	115200	65760	25000	11510	4080

CAL YR 1983 TOTAL 176641 MEAN 484 MAX 3910 MIN 35 AC-FT 350400
WTR YR 1984 TOTAL 148495 MEAN 406 MAX 2700 MIN 35 AC-FT 294500

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 24...	1310	91	1250	8.5	520	110	60	120	2	3.6
JAN 30...	1810	41	1530	.0	630	140	68	120	2	3.0
APR 18...	1630	947	1180	4.5	390	77	49	110	2	3.8
JUL 09...	2030	227	1210	19.5	440	96	49	100	2	2.4

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	160	590	31	.40	4.0	1000	1.4	249	.000	.000
JAN 30...	200	600	29	.20	9.5	1100	1.5	121	.500	.000
APR 18...	120	480	19	.40	5.8	820	1.1	2090	.600	.050
JUL 09...	170	420	24	.10	6.6	800	1.1	490	.200	.000

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 24...	1310	<24	2.0	<12	4.2	<10	3.9	.19	20	1.4
JAN 30...	1810	<29	.5	<15	1.7	<13	1.5	.24	20	.3
APR 18...	1630	<19	120	11	78	9.5	67	.23	12	82
JUL 09...	2030	<21	3.8	<11	4.0	<9.1	3.5	.29	11	--

BEST COPY AVAILABLE

06635500 SEMINOE RESERVOIR NEAR LEO, WY

LOCATION.--Lat 42°09'21", long 106°54'29", in NW¼NE¼ sec.8, T.25 N., R.84 W., Carbon County, Hydrologic Unit 10180003, on upstream side near center of dam on North Platte River, 6.0 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850.1 ft, and 9.0 mi southwest of Leo.

DRAINAGE AREA.--7,230 mi², of which 589 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1939 to current year. Monthend figures only for February, March 1939, October 1940 to September 1950, published in WSP 1310

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,190.00 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 20, 1939, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began Apr. 1, 1939, but some regulation for power development during period Jan. 1 to Mar. 31, 1939. Capacity, 1,017,000 acre-ft below elevation 6,357 ft, top of spillway gates. Figures given herein represent total contents, of which 31,700 acre-ft, capacity below elevation 6,239 ft, minimum operating level for power development, are not available for power development and 533 acre-ft, below elevation 6,185.09 ft, penstock invert, is dead storage. Water is used for irrigation and power development.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,073,000 acre-ft, June 20, 1949, elevation, 6,359.29 ft; minimum daily (since appreciable storage was attained), 19,040 acre-ft, Sept. 1, 1939, elevation, 6,228.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 989,000 acre-ft, Aug. 2, elevation, 6,355.57 ft; minimum daily contents, 616,000 acre-ft, Apr. 17, elevation, 6,333.12 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,330	575,000	6,350	883,000
6,340	716,000	6,356	997,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	903000	884000	863000	834000	784000	716000	645000	638000	926000	955000	986000	954000
2	902000	882000	862000	833000	782000	713000	642000	639000	938000	953000	989000	953000
3	902000	880000	861000	834000	781000	711000	640000	643000	950000	951000	988000	951000
4	903000	879000	861000	834000	779000	709000	637000	645000	963000	948000	986000	951000
5	904000	877000	861000	835000	777000	708000	635000	648000	973000	945000	982000	950000
6	903000	876000	859000	835000	775000	705000	633000	650000	980000	942000	979000	949000
7	901000	873000	859000	833000	773000	704000	632000	654000	980000	940000	975000	947000
8	901000	872000	857000	833000	773000	703000	630000	657000	977000	937000	971000	945000
9	901000	871000	855000	832000	771000	701000	629000	658000	972000	935000	968000	943000
10	901000	870000	855000	831000	769000	701000	628000	665000	971000	937000	967000	942000
11	900000	870000	856000	830000	768000	701000	626000	676000	969000	943000	965000	941000
12	900000	870000	856000	827000	767000	699000	624000	690000	964000	953000	965000	940000
13	900000	870000	854000	826000	765000	698000	622000	707000	959000	951000	964000	938000
14	900000	870000	854000	825000	763000	697000	620000	728000	953000	954000	962000	936000
15	900000	870000	852000	825000	760000	694000	618000	746000	951000	957000	961000	935000
16	899000	869000	851000	822000	758000	692000	617000	763000	950000	959000	961000	937000
17	898000	868000	851000	820000	753000	687000	616000	779000	951000	961000	961000	937000
18	897000	867000	851000	819000	750000	684000	617000	798000	952000	963000	961000	936000
19	898000	867000	851000	816000	747000	681000	619000	815000	953000	964000	961000	936000
20	897000	867000	849000	814000	744000	679000	621000	829000	954000	964000	961000	936000
21	897000	867000	846000	814000	742000	678000	623000	842000	953000	965000	962000	936000
22	896000	866000	844000	812000	738000	676000	624000	852000	953000	965000	960000	935000
23	895000	865000	841000	810000	735000	674000	625000	861000	956000	967000	962000	933000
24	896000	866000	839000	808000	731000	671000	626000	871000	958000	968000	961000	934000
25	894000	865000	839000	804000	728000	668000	628000	882000	961000	970000	962000	934000
26	893000	865000	838000	803000	725000	665000	633000	892000	960000	972000	961000	933000
27	892000	865000	838000	799000	723000	662000	636000	901000	960000	974000	960000	933000
28	890000	865000	836000	796000	721000	658000	637000	908000	959000	978000	959000	931000
29	888000	864000	835000	793000	717000	655000	637000	912000	958000	980000	958000	931000
30	887000	864000	835000	789000	---	651000	636000	915000	956000	982000	957000	930000
31	885000	---	834000	787000	---	648000	---	919000	---	984000	954000	---
MAX	904000	884000	863000	835000	784000	716000	645000	919000	980000	984000	989000	954000
MIN	885000	864000	834000	787000	717000	648000	616000	638000	926000	935000	954000	930000
(†)	6,350.15	6,348.95	6,347.26	6,344.47	6,340.12	6,335.42	6,334.57	6,351.97	6,353.92	6,355.32	6,353.82	6,352.57
(‡)	-20,000	-21,000	-30,000	-47,000	-70,000	-69,000	-12,000	+283,000	+37,000	+28,000	-30,000	-24,000

CAL YR 1983 MAX 1056000 MIN 486000 (‡) +112,000
WTR YR 1984 MAX 989000 MIN 616000 (‡) +25,000

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06637750 ROCK CREEK ABOVE ROCK CREEK RESERVOIR, WY

LOCATION.--Lat 42°32'59", long 108°46'26", in NW¼NW¼ sec.27, T.30 N., R.100 W., Fremont County, Hydrologic Unit 10180006, Shoshone National Forest, on left bank 200 ft upstream from high-water line of Rock Creek Reservoir, 2.7 mi downstream from Little Rock Creek, and 4.3 mi northwest of Atlantic City.

DRAINAGE AREA.--9.2 mi², approximately.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,330 ft, from topographic map.

REMARKS.--Records good except those for December to April, which are poor. No diversions above station.

AVERAGE DISCHARGE.--22 years, 8.78 ft³/s, 6,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s, June 9, 1965, gage height, 7.26 ft; maximum gage height, 8.54 ft, Apr. 22, 1965 (backwater from ice); minimum daily discharge, 0.5 ft³/s, Jan. 12-14, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
May 21	0230	*134	*6.80

Minimum daily discharge, 1.3 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	2.4	2.2	1.8	1.5	1.6	1.7	2.2	63	12	8.9	3.7
2	5.2	2.4	2.2	1.8	1.5	1.6	1.7	2.3	53	9.9	5.5	3.2
3	4.2	2.4	2.1	1.8	1.5	1.6	1.7	2.4	54	9.1	4.9	2.8
4	3.8	2.3	2.2	1.9	1.6	1.7	1.7	2.5	49	8.7	4.6	2.6
5	3.4	2.6	2.1	1.9	1.6	1.5	1.7	2.7	52	8.2	4.5	2.5
6	3.1	2.7	2.1	1.9	1.5	1.5	1.7	2.5	44	7.7	5.6	5.3
7	2.9	2.7	2.1	2.0	1.5	1.5	1.7	2.5	39	7.3	5.3	4.3
8	2.8	2.3	2.2	2.0	1.6	1.5	1.7	2.8	34	7.3	4.3	3.2
9	2.8	2.2	2.2	2.1	1.5	1.5	1.6	4.5	31	12	4.1	2.9
10	3.1	2.3	2.2	2.1	1.5	1.6	1.5	6.7	31	12	3.9	2.7
11	2.8	2.4	2.2	2.0	1.5	1.6	1.4	9.6	34	8.2	3.7	5.1
12	2.7	2.4	2.1	2.0	1.6	1.6	1.4	17	28	7.0	3.6	8.5
13	2.7	2.4	2.1	2.0	1.5	1.6	1.4	27	27	6.8	3.6	3.9
14	2.8	2.2	2.0	1.9	1.6	1.7	1.4	35	26	6.5	3.4	3.3
15	2.7	2.2	2.0	1.8	1.6	1.7	1.6	48	26	5.9	3.6	3.2
16	2.6	2.2	1.9	1.7	1.5	1.7	2.1	57	24	5.7	3.6	3.4
17	2.6	2.1	1.9	1.6	1.6	1.7	2.8	55	25	5.6	3.6	3.1
18	2.6	2.2	1.8	1.4	1.6	1.6	6.4	55	24	5.3	3.5	2.8
19	2.6	2.1	1.7	1.3	1.5	1.6	5.7	63	23	5.1	3.4	2.7
20	3.1	2.2	1.7	1.4	1.4	1.6	2.6	87	20	5.3	3.4	3.0
21	2.6	2.1	1.6	1.5	1.4	1.7	2.5	118	18	5.7	3.3	4.6
22	2.5	2.2	1.6	1.5	1.5	1.7	2.7	91	16	8.0	3.3	3.4
23	2.5	2.2	1.5	1.6	1.5	1.8	2.7	92	15	8.0	3.2	3.3
24	2.6	2.2	1.6	1.7	1.5	1.8	2.7	97	14	20	3.2	3.7
25	2.9	2.2	1.7	1.7	1.6	1.8	2.4	77	14	8.1	3.1	3.4
26	2.6	2.1	1.9	1.7	1.6	1.8	2.0	72	13	7.0	3.3	3.4
27	2.5	2.3	2.2	1.7	1.5	1.8	2.2	66	12	5.9	3.0	3.2
28	2.4	2.2	2.0	1.7	1.5	1.7	2.4	63	11	5.5	2.7	3.0
29	2.4	2.2	2.0	1.6	1.5	1.7	2.2	65	11	5.1	2.6	3.0
30	2.3	2.2	1.9	1.6	---	1.7	2.1	66	13	5.1	2.5	3.0
31	2.4	---	1.8	1.5	---	1.6	---	71	---	6.8	3.0	---
TOTAL	90.5	68.6	60.8	54.2	44.3	51.1	67.4	1362.7	844	240.8	120.2	106.2
MEAN	2.92	2.29	1.96	1.75	1.53	1.65	2.25	44.0	28.1	7.77	3.88	3.54
MAX	5.2	2.7	2.2	2.1	1.6	1.8	6.4	118	63	20	8.9	8.5
MIN	2.3	2.1	1.5	1.3	1.4	1.5	1.4	2.2	11	5.1	2.5	2.5
AC-FT	180	136	121	108	88	101	134	2700	1670	478	238	211

CAL YR 1983 TOTAL 4915.1 MEAN 13.5 MAX 156 MIN 1.4 AC-FT 9750
WTR YR 1984 TOTAL 3110.8 MEAN 8.50 MAX 118 MIN 1.3 AC-FT 6170

06638090 SWEETWATER RIVER NEAR SWEETWATER STATION, WY

LOCATION.--Lat 42°30'17", long 108°14'59", in SW¼SE¼NE¼ sec.12, T.29 N., R.96 W., Fremont County, Hydrologic Unit 10180006, on left bank 1.4 mi downstream from Alkali Creek and 4.4 mi southwest of Sweetwater Station.

DRAINAGE AREA.--849 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,590 ft, from topographic map.

REMARKS.--Records fair except those for November to May, which are poor. Transbasin diversion by Continental Divide ditch diverts water from Little Sandy Creek to land along Lander Creek (tributary to Sweetwater River). A transbasin diversion diverts water from Sweetwater River into Pacific Creek (tributary to Big Sandy River in Green River basin).

AVERAGE DISCHARGE.--11 years, 148 ft^3/s, 107,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,750 ft^3/s, Apr. 24, 1980, gage height, 12.40 ft, from floodmark; minimum daily, 5.6 ft^3/s, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 15	0800	*1,470	a*7.93

a-From floodmark.

Minimum daily discharge, 29 ft^3/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	42	41	39	31	39	70	210	688	270	125	44
2	63	44	43	39	31	42	70	240	720	260	131	43
3	71	44	41	41	32	44	70	271	656	240	125	45
4	82	45	43	42	33	45	78	277	597	230	108	43
5	80	46	43	44	34	43	86	280	587	220	97	38
6	72	47	40	44	34	41	100	260	579	210	90	36
7	65	48	40	45	33	41	110	260	586	200	92	47
8	60	60	42	46	33	42	120	300	526	210	95	61
9	57	54	44	47	34	42	110	370	463	230	84	68
10	57	50	46	46	35	42	100	450	409	230	75	55
11	56	52	48	45	35	43	90	600	447	200	68	48
12	58	54	50	44	35	44	82	720	452	170	66	52
13	59	56	50	47	37	48	76	1000	397	151	68	77
14	57	54	49	44	37	52	74	1300	349	139	67	105
15	57	54	47	41	35	58	76	1540	352	134	62	80
16	56	54	46	39	35	60	85	1550	378	124	62	68
17	57	60	44	39	36	58	100	1300	396	118	61	61
18	56	68	43	36	37	56	120	1010	379	109	65	55
19	53	70	42	33	35	52	140	863	361	99	68	51
20	52	70	39	29	35	52	150	853	370	101	61	48
21	61	68	37	33	35	58	145	975	360	98	59	45
22	65	62	36	35	37	62	140	979	339	104	60	49
23	64	54	34	36	37	68	130	944	327	155	57	66
24	56	48	33	37	36	72	130	816	305	169	56	71
25	52	50	35	40	37	78	150	772	317	203	54	76
26	52	50	38	41	39	70	170	800	303	176	59	77
27	47	47	42	42	38	66	190	679	286	138	56	69
28	43	44	43	39	37	62	220	634	287	122	52	65
29	43	41	41	36	37	62	200	617	274	107	45	67
30	41	40	38	34	---	68	190	618	262	110	42	62
31	41	---	37	32	---	64	---	642	---	118	40	---
TOTAL	1785	1576	1295	1235	1020	1674	3572	22130	12752	5145	2250	1772
MEAN	57.6	52.5	41.8	39.8	35.2	54.0	119	714	425	166	72.6	59.1
MAX	82	70	50	47	39	78	220	1550	720	270	131	105
MIN	41	40	33	29	31	39	70	210	262	98	40	36
AC-FT	3540	3130	2570	2450	2020	3320	7090	43890	25290	10210	4460	3510

CAL YR 1983 TOTAL 88367 MEAN 242 MAX 3340 MIN 24 AC-FT 175300
WTR YR 1984 TOTAL 56206 MEAN 154 MAX 1550 MIN 29 AC-FT 111500

06639000 SWEETWATER RIVER NEAR ALCOVA, WY

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼NE¼ sec.25, T.29 N., R.87 W., Natrona County, Hydrologic Unit 10180006, on left bank at Dumbell Ranch, 1.0 mi downstream from Schounmaker ditch diversion dam, 13 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft, and 25 mi southwest of Alcova.

DRAINAGE AREA.--2,327 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974, 1975, 1977-81, and since 1983). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft, from topographic map. Aug. 28, 1913, to Sept. 30, 1924, nonrecording gages at site 0.4 mi upstream at different datums.

REMARKS.--Records good. Several small reservoirs above station, combined capacity, about 5,000 acre-ft, for irrigation. Diversions for irrigation of about 24,000 acres above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey. Three discharge measurements were made by Bureau of Reclamation.

AVERAGE DISCHARGE.--48 years (water years 1914-24, 1939-73, 1976, 1982), 126 ft³/s, 91,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,290 ft³/s, Apr. 13, 1924, maximim gage height, 9.90 ft, Apr. 27, 1983; minimum daily, 0.5 ft³/s, July 30 to Aug. 12, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft³/s, May 20, gage height, 6.95 ft; minimum daily during period of operation, 61 ft³/s, Sept. 6, 8, 9, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							125	297	741	230	135	68
2							125	294	722	224	144	67
3							115	284	684	217	131	65
4							115	286	704	213	123	64
5							111	311	726	209	125	63
6							115	332	722	198	125	61
7							126	332	655	181	117	63
8							127	344	619	164	112	61
9							127	321	619	148	107	61
10							136	309	608	154	101	63
11							129	324	559	152	101	65
12							129	395	503	160	102	69
13							121	516	452	162	99	74
14							123	636	451	157	95	74
15							125	752	426	154	95	73
16							123	892	385	142	95	71
17							129	1040	355	133	93	78
18							137	1210	342	128	90	84
19							160	1360	342	120	90	74
20							200	1420	342	121	93	68
21							221	1370	332	117	92	65
22							269	1290	313	117	92	63
23							272	1180	291	118	91	63
24							254	1090	282	155	88	61
25							261	1170	274	156	86	61
26							355	1160	272	150	83	63
27							427	1050	265	148	80	73
28							351	944	255	148	78	79
29							219	905	250	148	75	74
30							214	836	232	134	73	74
31							---	771	---	129	70	---
TOTAL							5441	23421	13723	4887	3081	2042
MEAN							181	756	457	158	99.4	68.1
MAX							427	1420	741	230	144	84
MIN							111	284	232	117	70	61
AC-FT							10790	46460	27220	9690	6110	4050

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
NOV										
09...	1210	102	412	.0	140	43	8.0	33	1	3.5
JAN										
09...	1420	53	452	.0	140	43	8.4	40	2	5.9
MAY										
10...	0915	309	406	9.5	120	35	8.6	34	1	4.9
JUL										
12...	0915	163	368	20.0	130	37	8.2	29	1	4.8

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV										
09...	130	61	16	.30	4.1	250	.34	68	.000	.110
JAN										
09...	140	72	16	.30	28	300	.40	43	.200	.030
MAY										
10...	120	53	11	.30	18	240	.32	198	.000	.050
JUL										
12...	120	41	13	.20	19	220	.30	99	.000	.010

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
NOV											
09...	1210	25	1.3	6.9	3.2	5.8	3.0	.08	13	17	.9
JAN											
09...	1420	32	.8	12	2.6	9.9	2.3	.08	16	22	.5
MAY											
10...	0915	20	6.9	6.9	5.5	5.9	4.8	.06	9.0	14	4.7
JUL											
12...	0915	18	.8	7.0	1.6	6.0	1.4	.13	9.9	--	--

06639480 HORSE CREEK AT HIGHWAY 220, NEAR ALCOVA, WY

LOCATION.--Lat 42°34'10", long 106°59'58", in NW¼SE¼NE¼ sec.15, T.30 N., R.85 W., Natrona County, Hydrologic Unit 10180006, at bridge on State Highway 220, 3.0 mi upstream from mouth, 3.0 mi downstream from mouth of Fish Creek, and 14.4 mi west of Alcova.

PERIOD OF RECORD.--October 1981 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUL									
12...	1100	7.1	18.5	<.01	<.01	<.01	<.01	<.010	<.010
SEP									
10...	1500	5.0	16.0	<.01	<.01	<.01	<.01	<.010	.020

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY

LOCATION.--Lat 42°28'06", long 106°51'12", in NW¼SW¼ sec.24, T.29 N., R.84 W., Natrona County, Hydrologic Unit 10180003, in gatehouse near left end of dam on North Platte River and 9.0 mi southwest of Alcova.

DRAINAGE AREA.--10,711 mi², of which 700 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1909 to current year. Monthend figures only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,678.1 ft, National Geodetic Vertical Datum of 1929. Prior to Apr. 12, 1950, nonrecording gages near present site, and Apr. 12 to Sept. 30, 1950, water-stage recorder at present site, all at Bureau of Reclamation datum which was 1.9 ft lower.

REMARKS.--Reservoir is formed by masonry dam. Storage began in April 1909. Capacity, 1,016,000 acre-ft between elevations 5,668.1 ft, north outlet trashrack sill, and 5,850.1 ft, crest of spillway. No dead storage. Figures given herein represent total contents. Water is used to irrigate lands in Wyoming and Nebraska under the North Platte project. Since December 1960, the water has been diverted directly through a tunnel to Fremont Canyon Powerplant, bypassing a section of river channel immediately below Pathfinder Dam.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,182,000 acre-ft, June 25-27, 1917, elevation 5,858.86 ft, present datum; no storage at times during 1909-12, 1931, 1958-59.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,081,000 acre-ft, June 14, elevation, 5,852.98 ft; minimum daily contents, 842,000 acre-ft, Oct. 5, 6, minimum elevation, 5,841.72 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,840	810,000	5,853	1,081,000
5,850	1,014,000		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	844000	861000	869000	881000	923000	977000	947000	898000	1060000	1060000	975000	916000
2	845000	862000	870000	879000	925000	978000	946000	893000	1060000	1060000	973000	915000
3	844000	864000	871000	879000	926000	980000	945000	890000	1060000	1060000	971000	913000
4	843000	864000	870000	879000	927000	979000	943000	890000	1060000	1060000	971000	911000
5	842000	866000	870000	880000	929000	981000	938000	885000	1060000	1060000	971000	909000
6	842000	868000	871000	881000	931000	980000	935000	882000	1060000	1060000	971000	907000
7	843000	868000	872000	881000	931000	979000	933000	880000	1070000	1050000	972000	905000
8	843000	869000	873000	882000	933000	979000	931000	878000	1070000	1050000	972000	902000
9	843000	869000	874000	884000	934000	977000	930000	876000	1080000	1050000	973000	900000
10	843000	871000	873000	883000	935000	975000	928000	871000	1080000	1040000	971000	898000
11	844000	872000	873000	884000	936000	973000	926000	866000	1080000	1040000	968000	895000
12	843000	873000	872000	886000	938000	971000	926000	860000	1080000	1030000	966000	894000
13	844000	872000	872000	888000	939000	969000	925000	856000	1080000	1030000	962000	894000
14	845000	873000	872000	888000	940000	967000	923000	855000	1080000	1020000	960000	892000
15	845000	872000	872000	888000	943000	966000	922000	856000	1080000	1020000	957000	890000
16	846000	872000	871000	889000	946000	963000	921000	863000	1080000	1020000	954000	890000
17	847000	872000	871000	891000	948000	961000	919000	871000	1080000	1010000	952000	889000
18	847000	872000	871000	893000	950000	961000	919000	881000	1080000	1010000	949000	887000
19	847000	872000	872000	895000	952000	959000	918000	891000	1080000	1010000	942000	887000
20	849000	872000	873000	897000	955000	957000	916000	901000	1070000	1000000	940000	885000
21	849000	872000	875000	897000	958000	955000	914000	912000	1070000	1000000	938000	883000
22	850000	872000	877000	897000	960000	954000	913000	926000	1070000	1000000	936000	882000
23	851000	871000	878000	898000	963000	952000	912000	940000	1070000	998000	935000	879000
24	851000	871000	880000	900000	965000	949000	910000	955000	1070000	995000	932000	879000
25	852000	870000	881000	903000	969000	950000	909000	973000	1070000	994000	931000	879000
26	853000	870000	882000	906000	967000	950000	907000	989000	1070000	989000	929000	880000
27	854000	870000	883000	909000	971000	949000	906000	1010000	1070000	986000	927000	882000
28	856000	869000	884000	912000	972000	949000	904000	1020000	1070000	983000	925000	882000
29	858000	869000	884000	914000	975000	948000	901000	1040000	1060000	980000	921000	882000
30	858000	869000	883000	918000	---	948000	900000	1050000	1060000	977000	920000	882000
31	860000	---	882000	921000	---	948000	---	1060000	---	976000	918000	---
MAX	860000	873000	884000	921000	975000	981000	947000	1060000	1080000	1060000	975000	916000
MIN	842000	861000	869000	879000	923000	948000	900000	855000	1060000	976000	918000	879000
(†)	5,842.60	5,843.06	5,843.74	5,845.64	5,848.21	5,846.92	5,844.63	5,851.86	5,852.20	5,848.28	5,845.51	5,843.72
(‡)	+18,000	+9,000	+13,000	+39,000	+54,000	-27,000	-48,000	+160,000	0	-84,000	-58,000	-36,000

CAL YR 1983	MAX	1084000	MIN	549000	(‡)	+336,000
WTR YR 1984	MAX	1080000	MIN	842000	(‡)	+40,000

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06641500 ALCOVA RESERVOIR AT ALCOVA, WY

LOCATION.--Lat 42°32'52", long 106°43'08", in SE¼SE¼ sec.24, T.30 N., R.83 W., Natrona County, Hydrologic Unit 10180007, in elevator shaft at right end of dam on North Platte River and 0.2 mi southwest of Alcova.

DRAINAGE AREA.--10,766 mi², of which 700 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1938 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 5,447.00 ft. Datum of gage is 5,320 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to June 27, 1955, nonrecording gages near present site at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in January 1938; storage began Feb. 8, 1938. Capacity, 184,300 acre-ft at elevation 5,500.00 ft, top of spillway gates. Dead storage, 100 acre-ft. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in North Platte River basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 190,300 acre-ft, Aug. 14, 15, 1952, elevation, 5,499.92 ft; minimum daily (since appreciable storage was attained), 1,980 acre-ft, Sept. 30, 1940, elevation, 5,353.56 ft. No usable storage prior to February 1938.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 182,000 acre-ft, May 22, Sept. 15, maximum elevation, 5,498.91 ft, May 22; minimum daily contents, 154,000 acre-ft, Dec. 25-29, 31, Jan. 5-14, Feb. 12-16, Mar. 13, Mar. 26 to Apr. 3, Apr. 17-19; minimum elevation, 5,487.02 ft, Jan. 6, Mar. 30.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,485	149,000	5,495	172,000
5,490	160,000	5,500	184,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179000	156000	156000	155000	156000	157000	154000	166000	179000	180000	178000	179000
2	178000	156000	156000	155000	156000	157000	154000	167000	180000	180000	178000	179000
3	176000	156000	156000	155000	155000	157000	154000	169000	180000	180000	178000	179000
4	175000	156000	156000	155000	155000	156000	156000	170000	180000	179000	177000	179000
5	174000	156000	157000	154000	155000	156000	157000	171000	180000	179000	177000	180000
6	174000	156000	156000	154000	155000	156000	158000	173000	178000	179000	177000	180000
7	173000	156000	156000	154000	156000	156000	158000	174000	177000	179000	177000	180000
8	172000	157000	156000	154000	156000	155000	158000	175000	178000	178000	178000	180000
9	172000	157000	155000	154000	155000	155000	158000	177000	179000	177000	178000	180000
10	171000	157000	155000	154000	155000	155000	158000	177000	178000	177000	179000	180000
11	170000	156000	155000	154000	155000	155000	157000	178000	178000	180000	179000	181000
12	170000	156000	155000	154000	154000	155000	157000	178000	178000	178000	180000	181000
13	169000	155000	156000	154000	154000	154000	156000	178000	178000	178000	180000	181000
14	169000	155000	156000	154000	154000	157000	156000	178000	178000	177000	181000	181000
15	167000	155000	157000	155000	154000	156000	156000	179000	179000	177000	181000	182000
16	166000	155000	157000	155000	154000	157000	155000	179000	179000	177000	181000	181000
17	165000	155000	157000	156000	155000	156000	154000	180000	179000	178000	181000	181000
18	164000	155000	157000	156000	156000	156000	154000	180000	179000	178000	181000	180000
19	163000	155000	157000	156000	156000	156000	154000	181000	179000	178000	181000	180000
20	161000	155000	158000	156000	156000	156000	155000	181000	179000	178000	181000	180000
21	161000	155000	158000	156000	155000	156000	155000	181000	180000	179000	181000	179000
22	160000	155000	157000	157000	155000	156000	155000	182000	181000	179000	180000	179000
23	159000	156000	157000	158000	156000	155000	155000	181000	180000	179000	180000	179000
24	158000	155000	155000	157000	156000	155000	157000	180000	180000	180000	180000	180000
25	157000	155000	154000	156000	156000	155000	158000	177000	181000	180000	179000	179000
26	157000	156000	154000	156000	157000	154000	159000	177000	181000	180000	179000	179000
27	157000	155000	154000	156000	157000	154000	160000	177000	180000	180000	179000	178000
28	157000	156000	154000	156000	157000	154000	162000	177000	180000	180000	178000	178000
29	156000	156000	154000	157000	157000	154000	163000	178000	179000	180000	179000	178000
30	156000	156000	155000	156000	---	154000	165000	178000	180000	180000	179000	177000
31	156000	---	154000	156000	---	154000	---	179000	---	179000	179000	---
MAX	179000	157000	158000	158000	157000	157000	165000	182000	181000	180000	181000	182000
MIN	156000	155000	154000	154000	154000	154000	154000	166000	177000	177000	177000	177000
(†)	5,488.03	5,487.87	5,487.32	5,488.05	5,488.40	5,487.06	5,491.96	5,497.65	5,498.13	5,497.86	5,497.67	5,496.85
(‡)	-24,000	0	-2,000	+2,000	+1,000	-3,000	+11,000	+14,000	[illegible]	-1,000	0	-2,000

CAL YR 1983 MAX 182000 MIN 154000 (‡) -2,000
WTR YR 1984 MAX 182000 MIN 154000 (‡) -3,000
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06642000 NORTH PLATTE RIVER AT ALCOVA, WY
(National stream-quality accounting network station)

LOCATION.--Lat 42°34'27", long 106°41'31", in NW¼NE¼NW¼ sec.17, T.30 N., R.82 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.5 mi downstream from Hogback Draw, 0.8 mi downstream from Gray Reef Dam, 1.9 mi northeast of Alcova, and 3.8 mi downstream from Alcova Dam.

DRAINAGE AREA.--10,812 mi^2, of which 700 mi^2 is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1904 to December 1905, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1937-38, 1945. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,299.40 ft, National Geodetic Vertical Datum of 1929. Feb. 19, 1904, to Dec. 31, 1905, nonrecording gage at site 3.7 mi upstream at different datum. June 1, 1935, to Apr. 27, 1961, water-stage recorder at site 3.5 mi upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Five discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,400 ft^3/s, June 6, 10, 11, 1905, gage height, 11.5 ft, site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,890 ft^3/s, June 8, gage height, 7.06 ft; minimum daily, 409 ft^3/s, Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	926	957	958	751	958	3070	3450	7350	6950	2940	1810
2	1150	928	952	958	783	1150	3070	3450	7500	6970	2950	1820
3	1140	924	957	958	787	1210	3070	3410	7490	7010	2940	1810
4	1150	935	959	957	789	1220	3070	3470	7470	6960	2970	1830
5	1150	933	955	957	783	1420	3170	3460	7500	6920	2980	1820
6	1150	936	955	957	783	1820	3390	3450	8110	6850	2880	1810
7	1150	940	950	956	784	2130	3380	3440	8680	6500	2730	1820
8	1150	941	959	956	798	2210	3360	3440	8710	6540	2540	1820
9	1160	939	954	956	807	2170	3540	3550	8760	6340	2530	1820
10	1150	936	955	956	855	2170	3720	3720	8790	5380	2520	1820
11	1150	936	954	961	923	2160	3730	3880	8730	4070	2530	1850
12	1140	939	955	884	924	2160	3730	3990	8730	3880	2530	1880
13	1160	939	955	791	924	2160	3720	4000	8730	3770	2530	1890
14	1160	940	962	791	925	2520	3720	3980	8740	3410	2510	1700
15	1170	941	959	787	918	3100	3730	3980	8630	3260	2610	1580
16	1170	951	956	783	922	3150	3740	3980	8310	2910	2770	1580
17	1170	955	956	784	923	3200	3650	3980	8280	2890	2850	1580
18	1170	947	956	790	926	3200	3570	3970	8290	2880	2970	1570
19	1170	946	958	785	917	3210	3610	3960	8140	2880	2760	1580
20	1170	945	950	781	924	3220	3580	3960	7850	2890	2520	1570
21	1170	955	957	781	923	3200	3580	3950	7620	2890	1980	1570
22	1180	959	956	784	923	3210	3580	3970	7360	2890	2000	1570
23	1180	951	960	784	807	3210	3520	4210	7350	2910	2000	1580
24	1190	947	957	785	919	3210	3400	4250	7350	2910	1990	1590
25	1190	954	959	786	921	3220	3420	4090	7180	2910	2000	1100
26	876	947	959	734	923	3210	3430	4290	7050	2910	2000	532
27	721	950	959	579	922	3200	3450	4180	7060	2910	1930	409
28	850	947	959	577	968	3200	3420	4090	7040	2940	1810	1010
29	914	951	959	617	1020	3210	3450	4540	7050	2940	1810	1580
30	916	885	959	683	---	3200	3420	5450	7020	2930	1800	1570
31	926	---	958	687	---	3100	---	6510	---	2940	1800	---
TOTAL	34233	28223	29656	25503	25472	79708	104290	124050	236870	131340	75680	47471
MEAN	1104	941	957	823	878	2571	3476	4002	7896	4237	2441	1582
MAX	1190	959	962	961	1020	3220	3740	6510	8790	7010	2980	1890
MIN	721	885	950	577	751	958	3070	3410	7020	2880	1800	409
AC-FT	67900	55980	58820	50590	50520	158100	206900	246100	469800	260500	150100	94160

CAL YR 1983 TOTAL 768481 MEAN 2105 MAX 8160 MIN 336 AC-FT 1524000
WTR YR 1984 TOTAL 942496 MEAN 2575 MAX 8790 MIN 409 AC-FT 1869000

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1969, October 1979 to September 1981.
WATER TEMPERATURES: October 1965 to September 1969, October 1979 to September 1981.
DISSOLVED SOLIDS: October 1965 to September 1969.
HARDNESS: October 1965 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 11...	1130	1160	440	8.3	13.0	9.3	108	K8	100	170
NOV 09...	1515	940	409	8.3	9.5	10.4	133	K3	--	170
DEC 07...	1245	956	425	8.3	3.0	11.9	109	K6	--	170
JAN 09...	1415	966	425	8.1	4.5	12.5	117	22	K2	170
FEB 07...	1000	759	450	8.0	2.5	13.0	116	<1	390	180
MAR 08...	1130	2300	440	8.0	4.0	12.2	113	<1	--	170
APR 10...	1300	3610	450	7.9	4.5	12.6	120	K5	K8	160
MAY 10...	1100	3700	420	7.9	6.5	12.0	120	K1	--	160
JUN 06...	1230	8100	440	8.6	11.0	10.4	117	K5	37	170
JUL 10...	1230	5190	490	8.3	17.0	9.0	113	<1	--	180
AUG 07...	1215	2820	480	8.3	16.0	11.4	140	K3	110	190
SEP 10...	1215	1740	440	8.0	15.5	9.6	119	K5	--	180

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 11...	46	14	28	1	3.2	112	110	7.2	.30	13
NOV 09...	46	14	28	1	3.0	114	100	8.3	.30	12
DEC 07...	44	14	28	1	2.9	114	100	7.4	.30	12
JAN 09...	46	14	28	1	3.0	115	99	7.8	.30	12
FEB 07...	47	14	27	.9	3.1	123	100	8.0	.40	14
MAR 08...	46	14	28	1	3.2	121	100	7.3	.30	12
APR 10...	43	13	26	.9	3.3	119	97	7.1	.30	13
MAY 10...	43	13	26	.9	3.0	117	92	6.4	.40	12
JUN 06...	46	13	28	1	2.7	114	99	6.6	.30	11
JUL 10...	47	15	30	1	3.2	111	120	7.7	.40	11
AUG 07...	48	16	30	1	3.1	113	110	7.4	.30	12
SEP 10...	47	15	31	1	2.8	111	110	7.4	.30	12

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)
OCT 11...	278	290	.38	871	--	.17	--	.120	.15
NOV 09...	295	280	.40	749	.20	.14	.070	--	--
DEC 07...	293	280	.40	756	.20	.18	.080	--	--
JAN 09...	293	280	.40	764	--	.12	--	.050	.06
FEB 07...	293	290	.40	600	--	.22	--	.050	.06
MAR 08...	291	280	.40	1810	.20	.21	.090	--	--
APR 10...	285	270	.39	2780	--	.21	--	.090	.12
MAY 10...	273	270	.37	2730	.10	.15	.060	--	--
JUN 06...	280	280	.38	6120	--	<.10	--	.070	.09
JUL 10...	311	300	.42	4360	<.10	<.10	.030	--	--
AUG 07...	309	300	.42	2350	--	.17	--	.180	.23
SEP 10...	300	290	.41	1410	.20	.13	.220	--	--

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 11...	--	1.0	.050	.050	.060	.18	33	103	99
NOV 09...	.73	.80	.040	--	--	--	--	--	--
DEC 07...	.92	1.0	.030	--	--	--	--	--	--
JAN 09...	--	.30	.040	.040	<.010	--	7	18	94
FEB 07...	--	.30	.010	.010	.030	.09	5	10	83
MAR 08...	.31	.40	.030	--	--	--	--	--	--
APR 10...	--	.60	.040	.030	.030	.09	23	224	91
MAY 10...	.74	.80	.040	--	--	--	--	--	--
JUN 06...	--	.60	.020	.040	.040	.12	29	634	72
JUL 10...	.37	.40	.010	--	--	--	--	--	--
AUG 07...	--	.50	.040	.040	.020	.06	25	190	87
SEP 10...	.48	.70	.040	--	--	--	--	--	--

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT 11...	1130	40	2	54	<.5	<1	<1	<3	4	27	3
JAN 09...	1415	20	1	49	.5	<1	<1	<3	2	45	<1
APR 10...	1300	30	2	54	<.5	<1	<1	<3	5	14	1
AUG 07...	1215	20	<1	47	<1.0	<1	4	<3	5	18	4

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 11...	40	17	<.1	<10	3	1	<1	360	<6	6
JAN 09...	23	8	<.1	<10	<1	1	<1	370	<6	43
APR 10...	22	2	<.1	<10	4	<1	<1	340	<6	10
AUG 07...	24	4	.2	<10	4	<1	<1	360	<6	18

06642500 BATES CREEK NEAR FREELAND, WY

LOCATION.--Lat 42°32'00", long 109°19'00", in NW¼ sec.29, T.30 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on old Casper-Medicine Bow Highway, 2.2 mi downstream from Chalk Creek, and 20 mi east of Alcova.

DRAINAGE AREA.--129 mi².

PERIOD OF RECORD.--June 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
05...	0915	11	306	7.5	140	43	8.5	12	.5	2.8
JAN										
04...	1530	11	311	1.0	130	40	7.4	14	.6	2.9
MAY										
09...	1100	81	160	3.5	77	23	4.8	6.0	.3	.80
JUL										
03...	1115	15	311	18.0	140	40	9.5	13	.5	2.4

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
05...	140	14	3.2	.30	19	190	.25	5.5	.000	.030
JAN										
04...	150	14	3.2	.20	22	190	.26	5.8	.500	.030
MAY										
09...	75	8.7	1.4	.10	16	110	.14	23	.000	.060
JUL										
03...	150	13	1.6	.00	20	190	.26	7.7	.000	.000

06642650 STINKING CREEK ABOVE LAWN CREEK, NEAR ALCOVA, WY

LOCATION.--Lat 42°29'11", long 106°27'49", in NW¼NE¼NE¼ sec.18, T.29 N., R.80 W., Natrona County, Hydrologic Unit 10180007, on right bank 0.3 mi upstream from Lawn Creek and 14 mi southeast of Alcova.

DRAINAGE AREA.--91.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1983 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,070 ft, from topographic map.

REMARKS.--Records poor. No gage-height record Nov. 27 to Jan. 3. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 830 ft³/s, Aug. 13, 1983, gage height, 4.72 ft, from floodmark, from rating curve extended above 300 ft³/s on basis of indirect measurement of peak flow; minimum daily, 0.42 ft³/s, July 21, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 296 ft³/s, July 23, gage height, 2.76 ft, from floodmark; maximum gage height, 2.88 ft, Mar. 13 (backwater from ice); minimum daily discharge, 0.42 ft³/s, July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	3.8	1.7	2.2	5.1	6.4	12	78	9.4	5.7	5.3	1.9
2	2.0	3.9	1.7	2.4	4.9	6.2	12	80	8.9	4.2	4.7	1.8
3	2.3	3.8	1.8	2.6	4.7	6.0	14	55	8.6	2.6	3.1	1.7
4	1.7	3.0	1.7	2.8	5.0	5.7	16	35	8.3	2.3	3.0	1.6
5	1.7	2.6	1.6	3.0	5.6	5.6	17	18	8.0	1.6	2.2	1.5
6	1.5	2.6	1.7	3.5	6.4	5.8	31	15	7.9	2.3	1.7	1.5
7	1.5	2.6	1.7	3.8	6.2	5.6	34	12	7.8	1.7	1.6	1.5
8	1.5	2.6	1.8	4.5	5.4	5.8	41	16	7.8	2.0	1.1	1.1
9	1.5	2.5	1.8	3.4	5.9	6.4	32	19	7.5	4.7	.91	.76
10	2.0	2.3	1.9	3.0	6.6	6.8	17	19	6.3	5.2	1.1	.76
11	2.0	2.1	1.8	2.7	5.8	8.7	15	17	7.5	2.2	1.3	.91
12	1.9	2.0	1.9	2.3	4.9	15	14	27	7.5	2.0	1.3	2.0
13	1.7	2.0	1.7	2.0	6.3	24	14	25	6.9	1.1	1.3	1.3
14	1.7	2.0	1.6	1.7	5.5	33	22	26	8.2	1.4	1.1	1.5
15	2.6	1.9	1.5	1.5	4.9	29	38	27	6.9	1.2	1.1	1.3
16	2.3	2.0	1.5	1.5	4.5	27	49	23	6.9	.93	1.7	1.3
17	2.3	2.0	1.5	1.4	3.8	29	62	20	6.5	.59	31	1.5
18	2.3	2.0	1.4	1.3	3.4	24	53	20	6.9	.54	10	1.3
19	2.3	1.9	1.5	1.4	3.6	25	48	20	6.3	.43	3.6	1.1
20	2.6	2.0	1.4	1.5	4.2	30	34	22	6.2	.58	2.5	1.1
21	2.3	2.0	1.3	1.7	5.6	45	16	29	6.3	.42	3.4	1.3
22	2.3	1.8	1.3	1.9	6.6	32	18	22	5.7	13	3.5	1.7
23	1.7	1.6	1.3	2.1	6.0	20	30	18	5.2	53	3.8	2.0
24	2.0	1.7	1.3	2.5	5.2	24	35	21	4.7	26	4.1	2.6
25	2.6	2.0	1.4	3.3	5.1	23	34	20	3.8	10	3.5	2.3
26	2.6	1.9	1.6	4.4	4.8	22	13	18	4.2	8.2	3.1	3.4
27	2.3	1.8	1.8	5.4	4.7	15	21	16	3.8	7.5	2.6	3.0
28	2.6	1.8	1.7	6.2	5.0	17	17	14	3.4	6.9	2.4	3.1
29	3.0	1.7	1.9	5.8	5.8	15	14	12	3.0	16	2.2	3.0
30	3.4	1.6	2.4	5.2	---	14	32	11	3.4	16	2.1	3.4
31	3.8	---	2.3	5.2	---	14	---	10	---	6.3	2.0	---
TOTAL	67.3	67.5	51.5	92.2	151.5	546.0	805	765	193.8	206.59	112.31	53.23
MEAN	2.17	2.25	1.66	2.97	5.22	17.6	26.8	24.7	6.46	6.66	3.62	1.77
MAX	3.8	3.9	2.4	6.2	6.6	45	62	80	9.4	53	31	3.4
MIN	1.3	1.6	1.3	1.3	3.4	5.6	12	10	3.0	.42	.91	.76
AC-FT	133	134	102	183	301	1080	1600	1520	384	410	223	106

WTR YR 1984 TOTAL 3111.93 MEAN 8.50 MAX 80 MIN .42 AC-FT 6170

06642650 STINKING CREEK ABOVE LAWN CREEK, NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to September 1984 (discontinued).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: April to September 1983, April to September 1984 (discontinued).

REMARKS.--Sediment loads for days when concentration is not listed are based on a sediment transport curve.

INSTRUMENTATION.--Sediment pumping sampler since April 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 37,700 mg/L, July 23, 1984, but was probably exceeded Aug. 13, 1983, during a period of missing record.
SEDIMENT LOADS: Maximum daily, 16,800 tons, estimated, Aug. 13, 1983; minimum daily, 0.11 tons, Sept. 17, 19, 1983.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 37,700 mg/L, July 23.
SEDIMENT LOADS: Maximum daily, 8,940 tons, July 23; minimum daily, 0.15 tons, July 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
NOV 07...	1425	2.4	1430	8.5	660	180	52	90	2	8.0
JAN 04...	1230	2.8	1400	.0	640	180	47	85	2	7.3
FEB 06...	1230	6.2	1440	--	660	180	50	85	1	7.0
MAR 13...	1100	12	1230	.0	550	150	42	75	1	7.9
APR 05...	1300	6.8	1450	10.0	690	190	52	85	1	7.8
MAY 21...	1130	36	716	11.0	290	79	22	42	1	4.9
JUN 08...	1245	7.7	939	11.0	400	110	30	57	1	6.2
JUL 03...	0940	2.8	992	20.5	430	120	31	60	1	5.8
AUG 08...	1050	2.0	947	19.0	450	130	30	59	1	6.3
SEP 07...	1130	1.5	1290	16.0	580	160	44	83	2	8.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV 07...	235	560	13	.60	30	1130	1100	1.5	7.3	<.10
JAN 04...	264	560	11	.50	30	1090	1100	1.5	8.2	<.10
FEB 06...	270	570	12	.60	30	1120	1100	1.5	19	<.10
MAR 13...	203	480	12	.50	25	963	910	1.3	31	.27
APR 05...	238	590	10	.60	27	1150	1100	1.6	21	.18
MAY 21...	131	230	5.2	.40	19	494	480	.67	48	.18
JUN 08...	208	310	7.0	.50	29	698	670	.95	15	<.10
JUL 03...	212	340	7.7	.50	28	732	720	1.0	5.5	<.10
AUG 08...	232	300	7.1	.50	33	715	710	.97	3.9	<.10
SEP 07...	218	520	9.9	.60	27	1030	980	1.4	4.2	<.10

06642650 STINKING CREEK ABOVE LAWN CREEK, NEAR ALCOVA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAR				
13...	1930	55	63	66
APR				
05...	1300	48	58	69
JUL				
22...	1830	86	93	95

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
SEP									
07...	1130	2	4	11	33	64	89	98	99

06642650 STINKING CREEK ABOVE LAWN CREEK, NEAR ALCOVA, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1.3	---	.35	3.8	---	4.6	1.7		.85
2	2.0	---	.90	3.9	---	5.4	1.7		.85
3	2.3	---	1.3	3.8	---	5.0	1.8		.96
4	1.7	---	.64	3.0	---	3.0	1.7		.85
5	1.7	---	.64	2.6	---	2.2	1.6		.74
6	1.5	---	.49	2.6	---	2.2	1.7		.85
7	1.5	121	.49	2.6	313	2.2	1.7		.92
8	1.5	---	.49	2.6	---	2.2	1.8		1.0
9	1.5	---	.49	2.5	---	1.9	1.8		1.0
10	2.0	---	.90	2.3	---	1.7	1.9		1.2
11	2.0	---	.90	2.1	---	1.3	1.8		1.0
12	1.9	---	.81	2.0	---	1.2	1.9		1.2
13	1.7	---	.71	2.0	---	1.2	1.7		.92
14	1.7	---	.71	2.0	---	1.2	1.6		.81
15	2.6	---	1.8	1.9	---	1.1	1.5		.70
16	2.3	---	1.4	2.0	---	1.2	1.5		.70
17	2.3	---	1.4	2.0	---	1.2	1.5		.70
18	2.3	---	1.4	2.0	---	1.2	1.4		.60
19	2.3	---	1.4	1.9	---	1.1	1.5		.70
20	2.6	---	1.8	2.0	---	1.2	1.4		.60
21	2.3	---	1.4	2.0	---	1.2	1.3		.51
22	2.3	---	1.4	1.8	---	.96	1.3		.51
23	1.7	---	.78	1.6	---	.74	1.3		.51
24	2.0	---	1.1	1.7	---	.85	1.3		.51
25	2.6	---	2.0	2.0	---	1.2	1.4		.60
26	2.6	---	2.0	1.9	---	1.1	1.6		.81
27	2.3	---	1.5	1.8	---	.96	1.8		1.0
28	2.6	---	2.0	1.8	---	.96	1.7		.92
29	3.0	---	2.8	1.7	---	.85	1.9		1.2
30	3.4	---	3.6	1.6	---	.74	2.4		2.0
31	3.8	---	4.6	---	---	---	2.3		1.8
TOTAL	67.3	---	42.20	67.5	---	51.86	51.5		27.52
		JANUARY			FEBRUARY			MARCH	
1	2.2	---	1.7	5.1	---	12	6.4	---	20
2	2.4	---	2.1	4.9	---	11	6.2	---	18
3	2.6	---	2.5	4.7	---	10	6.0	---	17
4	2.8	344	3.0	5.0	---	12	5.7	---	16
5	3.0	---	3.5	5.6	---	15	5.6	---	15
6	3.5	---	5.0	6.4	1160	20	5.8	---	16
7	3.8	---	5.9	6.2	---	18	5.6	---	15
8	4.5	---	8.6	5.4	---	14	5.8	---	16
9	3.4	---	4.7	5.9	---	16	6.4	---	26
10	3.0	---	3.5	6.6	---	21	6.8	---	38
11	2.7	---	2.8	5.8	---	16	8.7	---	78
12	2.3	---	2.0	4.9	---	11	15	---	302
13	2.0	---	1.5	6.3	---	20	24	12300	842
14	1.7	---	1.1	5.5	---	14	33	---	1690
15	1.5	---	.80	4.9	---	11	29	---	1270
16	1.5	---	.80	4.5	---	9.2	27	---	1060
17	1.4	---	.69	3.8	---	6.3	29	---	1270
18	1.3	---	.58	3.4	---	5.0	24	---	819
19	1.4	---	.69	3.6	---	5.5	25	---	892
20	1.5	---	.80	4.2	---	7.7	30	---	1290
21	1.7	---	1.1	5.6	---	15	45	---	3130
22	1.9	---	1.3	6.6	---	21	32	---	1490
23	2.1	---	1.7	6.0	---	17	20	---	534
24	2.5	---	2.5	5.2	---	13	24	---	796
25	3.3	---	4.5	5.1	---	12	23	---	706
26	4.4	---	8.5	4.8	---	11	22	---	640
27	5.4	---	13	4.7	---	10	15	---	277
28	6.2	---	17	5.0	---	12	17	---	363
29	5.8	---	16	5.8	---	16	15	---	277
30	5.2	---	13	---	---	---	14	---	230
31	5.2	---	13	---	---	---	14	---	230
TOTAL	92.2	---	143.86	151.5	---	381.7	546.0	---	18383

06642650 STINKING CREEK ABOVE LAWN CREEK, NEAR ALCOVA, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	12	---	166	78	13200	2770	9.4	517	13
2	12	---	166	80	---	2600	8.9	506	12
3	14	---	223	55	6730	1000	8.6	383	8.9
4	16	---	304	35	6750	638	8.3	393	8.8
5	17	7430	341	18	---	125	8.0	429	9.3
6	31	---	1020	15	---	76	7.9	429	9.2
7	34	---	1150	12	---	42	7.8	473	10
8	41	---	1590	16	1370	59	7.8	324	6.8
9	32	---	874	19	1910	98	7.5	297	6.0
10	17	---	198	19	---	77	6.3	380	6.5
11	15	---	134	17	960	44	7.5	641	13
12	14	---	108	27	---	181	7.5	332	6.7
13	14	---	101	25	---	153	6.9	249	4.6
14	22	---	233	26	---	167	8.2	328	7.3
15	38	---	638	27	---	181	6.9	---	3.2
16	49	---	1120	23	---	128	6.9	---	3.2
17	62	---	1860	20	---	94	6.5	---	2.8
18	53	---	1320	20	---	94	6.9	---	3.2
19	48	---	1060	20	---	94	6.3	---	2.5
20	34	---	501	22	---	116	6.2	85	1.4
21	16	---	98	29	2710	212	6.3	148	2.5
22	18	---	125	22	---	116	5.7	213	3.3
23	30	---	342	18	---	75	5.2	183	2.6
24	35	---	481	21	---	105	4.7	107	1.4
25	34	---	450	20	1430	77	3.8	84	.86
26	13	---	56	18	880	43	4.2	111	1.3
27	21	---	140	16	693	30	3.8	90	.92
28	17	---	88	14	563	21	3.4	112	1.0
29	14	1530	58	12	534	17	3.0	90	.73
30	32	---	350	11	556	17	3.4	123	1.1
31	---	---	---	10	449	12	---	---	---
TOTAL	805	---	15295	765	---	9462	193.8	---	154.11
		JULY			AUGUST			SEPTEMBER	
1	5.7	135	2.1	5.3	---	16	1.9	418	2.1
2	4.2	112	1.3	4.7	---	7.5	1.8	305	1.5
3	2.6	116	.81	3.1	292	2.4	1.7	---	1.1
4	2.3	147	.91	3.0	182	1.5	1.6	---	.95
5	1.6	453	2.0	2.2	158	.94	1.5	---	.86
6	2.3	267	1.7	1.7	139	.64	1.5	---	.86
7	1.7	228	1.0	1.6	108	.47	1.5	---	.86
8	2.0	192	1.0	1.1	305	1.2	1.1	---	.43
9	4.7	478	6.1	.91	116	.29	.76	---	.19
10	5.2	339	4.8	1.1	90	.27	.76	---	.19
11	2.2	229	1.4	1.3	---	.39	.91	---	.29
12	2.0	226	1.2	1.3	---	.39	2.0	---	1.6
13	1.1	214	.64	1.3	---	.39	1.3	---	.62
14	1.4	188	.71	1.1	---	.24	1.5	---	.86
15	1.2	158	.51	1.1	---	.24	1.3	---	.62
16	.93	154	.39	1.7	500	2.3	1.3	---	.62
17	.59	140	.22	31	8850	3520	1.5	---	.81
18	.54	144	.21	10	3360	91	1.3	---	.58
19	.43	155	.18	3.6	---	6.3	1.1	---	.40
20	.58	---	.22	2.5	400	2.7	1.1	---	.40
21	.42	---	.15	3.4	1020	9.4	1.3	---	.58
22	13	13200	2410	3.5	630	6.0	1.7	---	1.1
23	53	37700	8940	3.8	640	6.6	2.0	---	1.5
24	26	---	921	4.1	575	6.4	2.6	---	2.7
25	10	---	60	3.5	385	3.6	2.3	---	2.1
26	8.2	---	33	3.1	240	2.0	3.4	545	5.0
27	7.5	---	28	2.6	252	1.8	3.0	---	3.8
28	6.9	---	22	2.4	190	1.2	3.1	---	4.0
29	16	---	225	2.2	122	.72	3.0	---	3.8
30	16	---	225	2.1	490	2.9	3.4	---	5.0
31	6.3	---	27	2.0	558	3.0	---	---	---
TOTAL	206.59	---	12918.55	112.31	---	3698.78	53.23	---	45.46
YEAR	3111.93		60604.04						

06643000 BATES CREEK NEAR ALCOVA, WY

LOCATION.--Lat 42°40'34", long 106°36'09", in SE¼SE¼ sec.1, T.31 N., R.82 W., Natrona County, Hydrologic Unit 10180007, at former gaging station, 2.8 mi upstream from mouth, and 10.5 mi northeast of Alcova.

DRAINAGE AREA.--393 mi².

PERIOD OF RECORD.--Water years 1957-58, 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
05...	1130	14	1250	9.5	600	170	43	66	1	6.3
NOV										
07...	1220	26	1140	7.5	550	160	37	56	1	4.3
JAN										
09...	1000	25	1110	2.0	540	160	33	59	1	5.5
FEB										
07...	0815	20	1150	.0	550	160	37	55	1	5.5
MAR										
08...	0845	23	1200	.0	560	160	39	59	1	5.4
APR										
10...	0810	15	1320	4.0	600	170	43	71	1	5.8
MAY										
09...	1500	90	641	12.0	290	83	20	30	.8	2.6
JUN										
08...	1500	12	1230	15.0	560	160	39	74	1	12
JUL										
03...	1245	3.0	1640	21.0	770	220	53	79	1	7.5
AUG										
08...	1310	12	1330	18.0	710	210	44	74	1	7.0
SEP										
07...	1400	2.8	1560	16.0	760	220	51	100	2	7.5

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
05...	230	490	7.7	.30	23	940	1.3	36	.000	.090
NOV										
07...	190	440	7.7	.40	21	840	1.1	59	.000	.070
JAN										
09...	220	440	7.7	.20	22	860	1.2	58	.600	.000
FEB										
07...	220	410	7.7	.20	22	830	1.1	45	.200	.010
MAR										
08...	230	460	7.2	.70	20	890	1.2	55	.200	.000
APR										
10...	210	530	10	.50	19	980	1.3	39	.500	.050
MAY										
09...	150	200	3.4	.20	16	450	.61	108	.100	.140
JUN										
08...	200	500	9.3	.20	21	940	1.3	30	.200	.000
JUL										
03...	220	700	15	.10	72	1300	1.7	10	.100	.000
AUG										
08...	250	570	9.9	.30	25	1100	1.5	35	.000	.040
SEP										
07...	220	710	12	.20	29	1300	1.7	9.5	.000	.000

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY

LOCATION.--Lat 42°45'10", long 106°31'12", in SW¼NW¼SW¼ sec.11, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.6 mi southwest of Goose Egg, 2.5 mi upstream from Poison Spider Creek, and 12 mi southwest of Casper.

DRAINAGE AREA.--11,439 mi^2, of which 700 mi^2 is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1917 to September 1919 (irrigation seasons only), May to September 1924, May to September 1947, May 1950 to September 1960, April 1983 to September 1984 (discontinued). Monthly discharge only for some periods, published in WSP 1310. Published as "near Casper" 1917-19, 1924.

REVISED RECORDS.--WDR WY-83-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,180 ft, from topographic map. April 1917 to September 1919, staff gage at site 1.0 mi upstream at different datum. May to September 1924, and May to September 1947, staff gages at site 1.8 mi downstream at different datum. May 1950 to September 1960, water-stage recorder at site 2.7 mi upstream at different datum.

REMARKS.--Records good except those for December and January, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,200 ft^3/s, June 24-28, 1917; maximum gage height, 11.80 ft, May 28, 1953, site and datum then in use; minimum daily discharge, 8.7 ft^3/s, June 14, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,850 ft^3/s, June 12, gage height, 6.26 ft; minimum daily, 523 ft^3/s, Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	1000	971	1080	795	1020	3160	3590	6810	6610	2880	1670
2	1240	1010	992	1010	825	1120	3170	3640	7150	6610	2870	1670
3	1220	996	990	1020	840	1250	3170	3570	7280	6640	2850	1670
4	1220	996	1010	1030	830	1260	3170	3540	7310	6620	2850	1660
5	1230	1000	995	1050	825	1280	3190	3520	7310	6580	2930	1660
6	1240	1020	975	1060	825	1650	3470	3510	7730	6610	2820	1640
7	1240	1030	1020	1070	825	1970	3480	3460	8500	6200	2720	1640
8	1230	1030	1010	1040	816	2110	3450	3470	8630	6190	2440	1630
9	1230	995	1010	1020	838	2120	3530	3500	8780	6180	2460	1660
10	1240	1000	1010	1000	834	2120	3750	3780	8780	5670	2430	1650
11	1240	994	1010	1030	925	2140	3760	3960	8780	4190	2460	1680
12	1220	1010	1020	1010	912	2190	3760	4260	8830	3820	2460	1680
13	1220	1010	1020	895	919	2210	3760	4570	8800	3750	2450	1660
14	1220	1000	1030	840	936	2420	3750	4580	8780	3460	2470	1600
15	1230	982	1030	805	928	3120	3760	4640	8750	3170	2460	1410
16	1230	972	985	755	918	3170	3780	4560	8310	2930	2730	1430
17	1220	984	960	720	947	3220	3770	4350	8250	2790	2730	1470
18	1220	997	945	685	945	3240	3680	4190	8210	2790	3000	1440
19	1230	986	935	705	935	3240	3710	4110	8180	2780	2720	1430
20	1230	979	900	745	935	3280	3660	4090	7740	2790	2710	1440
21	1230	990	860	770	935	3300	3640	4160	7660	2800	1980	1410
22	1230	973	815	790	935	3320	3620	4210	7160	2820	1900	1410
23	1240	977	840	820	850	3290	3620	4210	7150	2830	1900	1410
24	1250	965	890	870	1020	3290	3500	4420	7110	2830	1890	1400
25	1240	986	945	920	946	3350	3530	4140	7060	2790	1890	1280
26	1190	992	985	880	951	3300	3520	4370	6740	2770	1880	774
27	870	976	1020	750	954	3300	3490	4250	6750	2780	1840	523
28	881	981	955	680	959	3320	3470	4090	6730	2840	1680	548
29	1010	967	935	720	1040	3310	3510	4220	6750	2820	1680	1380
30	1020	926	990	750	---	3300	3540	4870	6700	2850	1670	1370
31	1010	---	1040	780	---	3260	---	5950	---	2840	1670	---
TOTAL	36751	29724	30093	27300	26143	80470	106370	127780	232720	127350	73420	43295
MEAN	1186	991	971	881	901	2596	3546	4122	7757	4108	2368	1443
MAX	1250	1030	1040	1080	1040	3350	3780	5950	8830	6640	3000	1680
MIN	870	926	815	680	795	1020	3160	3460	6700	2770	1670	523
AC-FT	72900	58960	59690	54150	51850	159600	211000	253500	461600	252600	145600	85880

WTR YR 1984 TOTAL 941416 MEAN 2572 MAX 8830 MIN 523 AC-FT 1867000

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected approximately 1,500 ft downstream from discharge station.

PERIOD OF RECORD.--April 1983 to September 1984 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1983 to September 1984 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: April 1983 to September 1984 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 840 micromhos, Oct. 26, 1983; minimum observed, 400 micromhos, July 7, 1983.
SEDIMENT LOADS: Maximum daily, 18,700 tons, Aug. 18, 1984, estimate from tributary inflow data; minimum daily, 19 tons, Jan. 23, 24, 1984.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 840 micromhos, Oct. 26; minimum, 416 micromhos, June 11.
TEMPERATURE: Maximum, 20.0°C, July 11, 12, 15, Aug. 2, 9, 10, 13-15, Aug. 25 to Sept. 2; minimum, 0.0°C, Dec. 14.
SEDIMENT LOADS: Maximum daily, 18,700 tons, Aug. 18, estimate from tributary inflow data; minimum daily, 19 tons, Jan. 23, 24.

SPECIFIC CONDUCTANCE, LABORATORY (MICROMHOS/CM AT 25 D, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	640	510	---	530	509	471	496	443	500	501	510
2	520	420	500	---	500	501	474	503	448	500	498	505
3	520	470	490	---	500	501	475	476	457	500	500	500
4	510	540	480	---	510	507	478	479	450	500	500	500
5	550	520	480	490	500	500	472	479	450	475	580	507
6	540	440	475	500	510	480	473	459	452	485	500	500
7	520	420	475	500	520	472	469	473	441	470	500	500
8	560	500	470	480	520	479	468	460	445	500	502	505
9	560	525	480	---	510	470	473	461	447	467	503	506
10	540	530	480	---	510	479	465	455	440	470	502	494
11	560	540	480	480	510	473	463	447	416	481	503	500
12	540	530	480	500	500	481	464	430	465	492	548	495
13	540	520	480	500	493	482	464	425	490	492	509	500
14	540	530	510	---	500	502	456	420	444	498	496	504
15	540	520	---	520	510	453	468	419	489	489	526	488
16	530	510	---	520	500	490	467	421	472	498	524	498
17	540	530	---	510	510	481	473	424	480	494	495	503
18	540	510	---	540	500	484	467	429	472	496	516	505
19	570	510	530	---	500	486	466	426	472	494	536	500
20	620	510	---	520	530	487	462	426	466	495	517	504
21	610	510	---	520	520	490	457	423	466	495	509	514
22	600	510	---	520	520	477	458	420	472	494	510	512
23	580	500	520	---	510	484	460	453	472	510	510	506
24	580	500	---	520	500	491	462	436	478	510	513	502
25	540	500	---	520	500	473	465	425	465	497	512	516
26	840	500	---	530	500	471	470	443	505	493	513	510
27	680	510	---	530	505	470	465	431	504	497	512	510
28	600	510	---	520	510	471	470	436	508	---	512	505
29	580	500	---	540	510	475	469	441	507	---	509	500
30	640	510	---	540	---	480	483	451	503	497	510	500
31	540	---	---	540	---	477	---	435	---	497	---	---
MEAN	570	509	490	515	508	483	468	445	467	493	512	503
MAX	840	640	530	540	530	509	483	503	508	510	580	516
MIN	510	420	470	480	493	453	456	419	416	467	495	488

WTR YR 1984 MEAN 497 MAX 840 MIN 416

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	12.0	1.0	---	1.5	6.0	5.0	8.0	12.0	---	16.0	20.0
2	12.0	12.0	1.0	---	1.5	6.0	5.0	9.0	13.0	---	19.5	20.0
3	11.0	12.0	1.0	---	2.0	5.0	6.0	9.0	13.0	---	20.0	19.5
4	14.0	12.0	1.0	---	3.0	5.0	8.5	9.0	12.0	17.0	18.0	19.0
5	15.5	10.0	1.0	1.0	2.5	7.0	8.5	7.0	12.0	17.0	18.0	18.0
6	15.0	8.0	1.0	1.0	2.5	6.0	7.0	7.5	11.0	18.0	18.5	18.0
7	12.5	4.0	1.0	1.5	3.5	4.0	7.0	9.0	11.5	17.0	19.0	18.5
8	15.0	2.0	2.0	1.5	3.0	4.5	6.5	9.0	11.0	17.0	19.0	18.5
9	14.0	4.0	2.0	2.0	3.0	5.0	7.0	9.0	12.0	16.0	20.0	18.0
10	14.0	4.0	1.0	2.0	4.0	5.0	6.0	10.0	12.5	18.0	20.0	17.0
11	11.0	6.0	.5	4.0	3.5	6.0	5.5	12.0	13.0	20.0	19.0	17.5
12	13.0	8.0	2.0	2.0	3.0	6.5	6.0	11.0	13.0	20.0	19.0	17.0
13	13.0	6.0	2.0	3.0	3.5	6.0	6.0	12.0	12.5	18.0	20.0	17.0
14	12.0	7.0	.0	2.5	4.0	5.0	7.0	---	13.0	19.0	20.0	17.0
15	11.0	7.0	---	2.0	3.0	5.5	7.0	12.0	13.5	20.0	20.0	18.0
16	13.0	7.0	---	1.0	6.0	5.5	7.0	10.5	13.5	19.0	19.5	18.0
17	14.0	7.0	---	1.0	5.0	6.0	8.0	9.0	14.0	19.0	19.0	19.0
18	13.0	4.0	---	1.0	6.0	6.5	8.0	12.0	14.0	19.0	18.5	18.0
19	12.5	5.0	---	1.5	5.5	7.0	6.0	12.0	14.0	18.0	19.0	18.0
20	14.0	6.0	---	2.0	6.0	7.5	6.5	13.0	15.0	18.5	19.5	18.0
21	---	4.0	---	2.0	6.0	9.0	6.5	---	15.0	19.0	19.0	16.0
22	14.0	2.0	---	1.0	5.5	8.0	7.5	10.5	16.5	19.5	19.0	15.0
23	14.0	2.0	---	1.0	5.5	8.0	8.0	11.0	17.0	18.5	19.0	13.0
24	13.0	2.0	---	1.0	6.0	8.5	7.5	9.0	17.0	19.0	19.5	9.0
25	14.0	2.0	---	1.0	6.0	8.5	7.0	9.0	17.5	19.0	20.0	13.0
26	13.0	2.0	---	1.5	6.0	8.0	7.0	9.5	18.0	19.0	20.0	16.0
27	13.0	2.0	---	1.5	6.0	8.0	7.0	10.0	18.0	19.0	20.0	9.0
28	14.0	2.0	---	1.0	6.0	8.0	7.0	11.0	18.0	18.5	20.0	12.0
29	13.0	2.0	---	1.5	6.0	8.0	7.0	11.0	18.5	18.0	20.0	10.0
30	13.0	2.0	---	.5	---	8.5	6.5	12.0	18.0	18.0	20.0	13.0
31	13.5	---	---	2.0	---	8.5	---	12.0	---	18.0	---	---
MEAN	13.5	5.5	1.0	1.5	4.5	6.5	7.0	10.0	14.5	18.5	19.5	16.5
MAX	15.5	12.0	2.0	4.0	6.0	9.0	8.5	13.0	18.5	20.0	20.0	20.0
MIN	11.0	2.0	.0	.5	1.5	4.0	5.0	7.0	11.0	16.0	16.0	9.0

WTR YR 1984 MEAN 10.5 MAX 20.0 MIN .0

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1230	21	70	1000	71	192	971	14	37
2	1240	19	64	1010	65	177	992	17	46
3	1220	16	53	996	50	134	990	17	45
4	1220	14	46	996	48	129	1010	26	71
5	1230	17	56	1000	52	140	995	---	72
6	1240	21	70	1020	64	176	975	---	74
7	1240	30	100	1030	93	259	1020	---	92
8	1230	25	83	1030	67	186	1010	35	95
9	1230	25	83	995	22	59	1010	21	57
10	1240	30	100	1000	30	81	1010	28	76
11	1240	35	117	994	21	56	1010	36	98
12	1220	29	96	1010	44	120	1020	36	99
13	1220	32	105	1010	35	95	1020	29	80
14	1220	32	105	1000	25	68	1030	34	95
15	1230	29	96	982	19	50	1030	---	86
16	1230	26	86	972	17	45	985	---	56
17	1220	27	89	984	18	48	960	---	43
18	1220	26	86	997	17	46	945	---	35
19	1230	42	139	986	12	32	935	---	30
20	1230	70	232	979	12	32	900	---	26
21	1230	82	272	990	12	32	860	---	22
22	1230	85	282	973	12	32	815	---	18
23	1240	86	288	977	16	42	840	---	20
24	1250	101	341	965	11	29	890	---	25
25	1240	108	362	986	8	20	945	---	31
26	1190	151	485	992	11	29	985	---	37
27	870	112	263	976	10	26	1020	---	42
28	881	102	243	981	10	26	955	---	32
29	1010	79	215	967	11	29	935	---	30
30	1020	67	185	926	11	28	990	---	38
31	1010	53	145	---	---	---	1040	---	45
TOTAL	36751	---	4957	29724	---	2418	30093	---	1653
		JANUARY			FEBRUARY			MARCH	
1	1080	---	56	795	211	453	1020	19	52
2	1010	---	48	825	186	414	1120	27	82
3	1020	---	55	840	134	304	1250	26	88
4	1030	---	60	830	84	188	1260	32	109
5	1050	71	74	825	41	91	1280	27	93
6	1060	71	163	825	62	138	1650	47	209
7	1070	73	211	825	19	42	1970	47	250
8	1040	68	191	816	21	46	2110	57	325
9	1020	45	124	838	81	183	2120	55	315
10	1000	20	54	834	36	81	2120	50	286
11	1030	20	56	925	38	95	2140	53	306
12	1010	14	38	912	22	54	2190	62	367
13	895	23	56	919	21	52	2210	128	764
14	840	36	82	936	32	81	2420	191	1250
15	805	35	76	928	18	45	3120	209	1760
16	755	11	22	918	13	32	3170	252	2160
17	720	13	25	947	25	64	3220	135	1170
18	685	12	22	945	15	38	3240	123	1080
19	705	26	49	935	11	28	3240	108	945
20	745	38	76	935	---	28	3280	144	1280
21	770	20	42	935	---	28	3300	157	1400
22	790	12	26	935	---	28	3320	181	1620
23	820	8	19	850	20	46	3290	174	1550
24	870	8	19	1020	35	96	3290	84	746
25	920	13	32	946	22	56	3350	34	308
26	880	36	86	951	17	44	3300	44	392
27	750	144	292	954	---	44	3300	42	374
28	680	74	136	959	---	43	3320	45	403
29	720	16	31	1040	---	58	3310	41	366
30	750	84	170	---	---	---	3300	43	383
31	780	168	354	---	---	---	3260	38	334
TOTAL	27300	---	2745	26143	---	2900	80470	---	20767

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06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	3160	37	316	3590	291	2820	6810	89	1640
2	3170	37	317	3640	464	4560	7150	93	1800
3	3170	36	308	3570	482	4650	7280	103	2020
4	3170	32	274	3540	369	3530	7310	67	1320
5	3190	48	413	3520	253	2400	7310	83	1640
6	3470	72	675	3510	102	967	7730	91	1900
7	3480	82	770	3460	126	1180	8500	110	2520
8	3450	99	922	3470	122	1140	8630	101	2350
9	3530	133	1270	3500	150	1420	8780	61	1450
10	3750	139	1410	3780	368	3760	8780	89	2110
11	3760	68	690	3960	473	5060	8780	101	2390
12	3760	79	802	4260	564	6490	8830	50	1190
13	3760	89	904	4570	1000	12300	8800	56	1330
14	3750	69	699	4580	722	8930	8780	79	1870
15	3760	139	1410	4640	743	9310	8750	58	1370
16	3780	332	3390	4560	610	7510	8310	48	1080
17	3770	316	3220	4350	368	4320	8250	45	1000
18	3680	365	3630	4190	203	2300	8210	25	554
19	3710	296	2970	4110	128	1420	8180	29	640
20	3660	178	1760	4090	127	1400	7740	37	773
21	3640	106	1040	4160	234	2630	7660	32	662
22	3620	78	762	4210	211	2400	7160	39	754
23	3620	88	860	4210	83	943	7150	43	830
24	3500	63	595	4420	62	740	7110	61	1170
25	3530	---	559	4140	65	727	7060	67	1280
26	3520	---	528	4370	45	531	6740	23	419
27	3490	---	514	4250	72	826	6750	20	355
28	3470	---	479	4090	72	795	6730	40	727
29	3510	49	464	4220	60	684	6750	42	765
30	3540	110	1050	4870	70	920	6700	29	525
31	---	---	---	5950	92	1480	---	---	---
TOTAL	106370	---	33001	127780	---	98143	232720	---	38434
		JULY			AUGUST			SEPTEMBER	
1	6610	---	567	2880	141	1100	1670	---	342
2	6610	---	567	2870	57	442	1670	---	335
3	6640	---	382	2850	22	169	1670	---	328
4	6620	23	411	2850	18	139	1660	70	314
5	6580	25	444	2930	1770	14000	1660	73	327
6	6610	18	321	2820	170	1290	1640	59	261
7	6200	6	92	2720	64	470	1640	65	288
8	6190	7	114	2440	56	369	1630	89	392
9	6180	140	2340	2460	57	379	1660	73	327
10	5670	209	3200	2430	35	230	1650	59	263
11	4190	88	996	2460	23	153	1680	54	245
12	3820	11	97	2460	28	186	1680	69	313
13	3750	17	172	2450	28	185	1660	80	359
14	3460	7	61	2470	64	427	1600	60	259
15	3170	5	39	2460	137	910	1410	59	225
16	2930	19	150	2730	38	280	1430	69	266
17	2790	14	105	2730	62	457	1470	74	294
18	2790	5	34	3000	---	18700	1440	75	292
19	2780	10	74	2720	15	110	1430	69	266
20	2790	17	128	2710	30	220	1440	84	327
21	2800	22	166	1980	47	251	1410	98	373
22	2820	78	594	1900	30	154	1410	77	293
23	2830	408	3120	1900	36	185	1410	73	278
24	2830	419	3200	1890	37	189	1400	97	367
25	2790	71	535	1890	23	117	1280	91	314
26	2770	27	202	1880	35	178	774	51	107
27	2780	22	165	1840	58	288	523	21	30
28	2840	50	383	1680	61	277	548	80	118
29	2820	66	503	1680	63	286	1380	102	380
30	2850	71	546	1670	79	356	1370	57	211
31	2840	68	521	1670	---	349	---	---	---
TOTAL	127350	---	20229	73420	---	42846	43295	---	8494
YEAR	941416		276587						

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY

LOCATION.--Lat 42°46'18", long 106°31'48", in NW¼SW¼NE¼ sec.3, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, at bridge on county road, 0.3 mi upstream from Poison Spider Creek, and 2.4 mi west of Goose Egg.

PERIOD OF RECORD.--November 1977 to November 1979, February 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 19...	1345	1200	510	7.3	13.0	10.9	126	K5	190	50
NOV 09...	1250	823	--	--	6.0	--	--	--	190	50
JAN 12...	1030	1020	540	8.6	2.0	11.3	99	K11	210	56
FEB 13...	1215	879	--	--	2.5	--	--	--	200	53
MAR 15...	1450	3150	--	--	5.5	--	--	--	180	48
APR 24...	1530	3550	460	8.6	7.0	11.4	116	K3	180	47
MAY 22...	1330	4620	--	--	10.0	--	--	--	160	42
JUN 07...	1230	8590	--	--	12.0	--	--	--	170	43
JUL 19...	0900	2800	425	8.5	15.5	8.5	104	K12	190	50
AUG 21...	1130	1940	--	--	17.5	--	--	--	190	49

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 19...	17	41	1	3.5	116	140	8.5	.30	12
NOV 09...	17	35	1	3.2	122	130	8.6	.30	12
JAN 12...	17	35	1	3.4	127	140	9.4	.30	12
FEB 13...	16	35	1	3.3	133	130	8.7	.30	13
MAR 15...	15	31	1	3.3	125	120	7.5	.30	12
APR 24...	14	28	1	3.0	121	100	6.9	.30	11
MAY 22...	13	24	.9	2.6	109	97	6.1	.20	11
JUN 07...	15	28	1	2.8	114	99	6.6	.30	11
JUL 19...	17	33	1	3.0	116	120	7.9	.30	11
AUG 21...	17	36	1	.70	121	140	8.0	.30	11

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 19...	335	340	.46	1090	.20	.17	.040	1.1	.060
NOV 09...	342	330	.47	760	--	.24	--	--	--
JAN 12...	353	350	.48	972	.20	.22	<.010	.30	.040
FEB 13...	379	340	.52	899	--	.21	--	--	--
MAR 15...	319	310	.43	2710	--	.27	--	--	--
APR 24...	298	280	.41	2860	.20	.14	.050	.40	.100
MAY 22...	285	260	.39	3560	--	.10	--	--	--
JUN 07...	284	270	.39	6590	--	<.10	--	--	--
JUL 19...	307	310	.42	2320	<.10	<.10	.040	.60	.030
AUG 21...	340	330	.46	1780	--	.13	--	--	--

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT 18...	1345	4	5	7	16	37	57	70	77	96	100

06644085 NORTH PLATTE RIVER AT MILLS, WY

LOCATION.--Lat 42°50'31", long 106°21'33", in NW¼NE¼SE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at railroad bridge, 700 ft upstream from Casper Creek, 900 ft east of Mills city limits, and 0.2 mi upstream from bridge on U.S. Highways 20 and 26.

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT 20...	1115	966	604	8.2	10.0	9.6	103
JAN 26...	0815	840	580	7.9	.0	12.8	106
APR 12...	0830	3900	290	8.2	3.5	11.4	105
JUL 11...	1015	5420	520	8.0	17.5	7.5	95

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 20...	K10	.300	<.010	--	1.0	.040
JAN 26...	K12	.400	.100	.10	.20	.030
APR 12...	50	.200	.030	.37	.40	.060
JUL 11...	K14	.200	.040	.96	1.0	.040

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06644500 CASPER CREEK AT CASPER, WY

LOCATION.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at U.S. Bureau of Reclamation gaging station, 700 ft upstream from bridge on U.S. Highways 20 and 26, 0.4 mi upstream from mouth, and 2.0 mi west of city hall in Casper.

DRAINAGE AREA.--668 mi^2, of which 98 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT										
20...	0945	15	5070	8.2	6.5	--	10.2	102	3400	--
JAN										
10...	0845	6.8	4200	8.1	1.0	--	10.4	90	K21000	--
APR										
12...	1015	122	2440	8.4	5.0	--	10.0	96	K1900	--
JUL										
11...	0900	27	4900	8.2	18.0	--	7.7	100	1500	--
AUG										
30...	1200	25	3700	8.3	18.5	55	8.8	115	--	890
SEP										
06...	0910	29	2860	8.3	15.0	85	8.0	98	--	--
12...	1345	29	3400	8.2	17.5	37	8.6	109	--	--
21...	0945	27	3200	8.1	13.5	60	8.4	100	--	--
26...	1350	54	2500	8.2	10.0	70	9.6	104	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT										
20...	--	--	--	--	--	--	--	--	--	--
JAN										
10...	--	--	--	--	--	--	--	--	--	--
APR										
12...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
AUG										
30...	160	120	59	.9	7.6	255	1400	46	.50	10
SEP										
06...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT									
20...	--	--	--	6.5	--	.470	1.5	2.0	.160
JAN									
10...	--	--	--	9.8	--	1.50	.80	2.3	.370
APR									
12...	--	--	--	.80	--	.130	1.5	1.6	.190
JUL									
11...	--	--	--	2.2	--	.130	1.6	1.7	.120
AUG									
30...	2000	2.7	132	--	1.9	--	--	--	.130
SEP									
06...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--

06644550 NORTH PLATTE RIVER AT CASPER, WY

LOCATION.--Lat 42°51'26", long 106°19'09", in SE¼SE¼NW¼ sec.4, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on service road, 800 ft west of Center Street exit from Interstate Highway 25, and 0.6 mi northwest of Casper Post Office.

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT									
07...	0900	1100	650	8.1	12.5	15	8.2	94	--
14...	1030	958	700	7.9	11.5	22	8.0	91	--
19...	1045	--	580	8.0	10.0	--	9.3	100	26
JAN									
10...	1015	--	550	8.1	1.0	--	10.6	90	120
APR									
12...	1200	4000	530	8.3	4.0	55	11.2	105	95
18...	0820	3770	570	8.1	7.0	350	10.3	105	--
MAY									
04...	0845	3800	710	8.3	6.0	550	10.5	102	--
10...	1330	3600	600	8.1	10.0	150	10.1	110	--
15...	1045	5000	580	7.8	11.5	550	9.6	107	--
25...	0930	E4700	468	8.4	8.0	120	9.6	98	--
31...	0830	5900	500	8.2	11.0	300	8.8	98	--
JUN									
08...	1000	E9140	467	8.4	10.5	1.5	8.9	97	--
13...	0910	E9200	484	8.4	11.0	60	8.5	94	--
19...	0800	8600	480	8.5	13.0	55	8.4	97	--
27...	0900	7130	500	8.3	15.0	55	8.0	96	--
JUL									
02...	0830	7080	500	8.3	16.0	45	7.8	96	--
11...	1145	5420	520	8.2	18.0	60	7.7	99	K40
19...	1130	2860	560	8.6	18.0	20	8.1	103	--
25...	0730	2820	580	8.3	18.0	550	7.5	95	--
AUG									
02...	0815	3000	535	8.3	18.0	65	8.0	103	--
10...	1100	2700	557	8.6	17.5	55	8.4	106	--
16...	1320	2600	620	7.8	18.0	45	7.6	98	--
23...	0730	2050	700	8.1	17.0	50	7.6	96	--
30...	1015	1850	580	8.2	17.5	33	8.1	102	--
SEP									
06...	0750	1830	650	8.3	16.0	37	7.7	96	--
12...	0900	1860	640	8.2	14.0	22	8.4	98	--
21...	0830	1530	620	8.0	15.0	27	7.2	88	--
26...	1115	1040	660	8.3	10.0	20	9.1	98	--

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	TIME	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT											
19...	1045	--	--	--	--	--	--	--	--	--	--
JAN											
10...	1015	--	--	--	--	--	--	--	--	--	--
APR											
12...	1200	--	--	--	--	--	--	--	--	--	--
JUL											
11...	1145	--	--	--	--	--	--	--	--	--	--
AUG											
30...	1015	210	53	20	45	1	3.4	126	9.6	170	.30

06644550 NORTH PLATTE RIVER AT CASPER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
19...	--	--	--	--	.40	--	.77	.030	.80	.050
JAN										
10...	--	--	--	--	.40	--	--	<.010	.30	.040
APR										
12...	--	--	--	--	.40	--	.36	.040	.40	.050
JUL										
11...	--	--	--	--	.20	--	.77	.030	.80	.040
AUG										
30...	10	390	.53	1930	--	.17	--	--	--	.050

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN							
08...	1000	<.01	<.01	<.01	<.01	<.010	.020
AUG							
10...	1100	<.01	<.01	<.01	<.01	<.010	.010
SEP							
12...	0900	<.01	<.01	<.01	<.01	<.010	.010

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

LOCATION.--Lat 42°51'40", long 106°12'53", in SE¼NW¼NW¼ sec.4, T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi upstream from Claude Creek, 0.6 mi north of U.S. Highways 20 and 87, 5.8 mi east of city hall in Casper, and 9.5 mi downstream from Casper Creek.

DRAINAGE AREA.--12,574 mi², of which 831 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT										
19...	1430	--	620	8.0	12.0	11.2	126	K28	240	60
NOV										
09...	0915	823	700	8.3	2.5	12.2	108	94	250	63
JAN										
26...	1100	840	650	7.7	.0	11.0	91	K1900	230	59
FEB										
14...	1030	950	680	8.2	1.0	11.2	97	K22	240	59
APR										
12...	1330	4000	570	8.8	5.0	11.1	107	140	200	48
MAY										
31...	1015	5900	495	8.5	12.0	8.4	96	190	190	48
JUN										
13...	1050	E9200	498	8.4	12.5	8.6	98	K25	180	47
JUL										
11...	1315	5420	540	8.2	18.5	7.3	95	K70	210	50
AUG										
23...	0845	2050	630	8.2	17.5	7.5	95	120	230	54
SEP										
11...	0815	1850	620	8.2	15.0	8.5	104	180	230	54

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT									
19...	22	52	2	2.8	130	200	12	.40	11
NOV									
09...	23	63	2	2.5	130	230	14	.30	10
JAN									
26...	20	53	2	3.2	140	180	12	.30	11
FEB									
14...	22	58	2	3.3	130	190	12	.30	11
APR									
12...	19	43	1	2.7	130	150	9.3	.60	12
MAY									
31...	16	34	1	2.2	120	120	7.7	.20	11
JUN									
13...	16	35	1	1.7	120	110	7.3	.40	10
JUL									
11...	20	41	1	2.8	120	150	8.5	.20	12
AUG									
23...	22	51	2	3.6	130	180	10	.30	12
SEP									
11...	22	51	2	2.6	130	180	11	.20	14

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT									
19...	440	.60	--	.50	.50	.040	1.1	1.1	.120
NOV									
09...	480	.66	1070	.50	.50	.130	.87	1.0	.150
JAN									
26...	420	.57	958	.50	.60	.200	.40	.60	.070
FEB									
14...	430	.59	1110	.50	.50	.100	.70	.80	.130
APR									
12...	360	.49	3920	.30	.30	.080	.32	.40	.060
MAY									
31...	310	.42	4960	.10	.10	.040	.26	.30	.030
JUN									
13...	300	.41	--	<.10	.20	.020	.98	1.0	.010
JUL									
11...	360	.48	5220	.20	.10	.050	.85	.90	.010
AUG									
23...	410	.56	2270	.30	.30	.180	.82	1.0	.070
SEP									
11...	410	.56	2060	.20	.20	.040	.76	.80	.120

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY

LOCATION.--Lat 42°51'50", long 105°51'56", in SW¼NW¼NW¼ sec.4, T.33 N., R.75 W., Converse County, Hydrologic Unit 10180007, on right bank in Glenrock, 800 ft downstream from bridge on U.S. Highways 20 and 87, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--213 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1961 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft, from topographic map.

REMARKS.--Records good except those during winter period, which are poor. One small reservoir above station, capacity, about 60 acre-ft, for irrigation. Diversions above station for irrigation of about 3,700 acres, of which about 400 acres are below station. Water is diverted at times to Millar ditch 0.3 mi upstream and bypasses station.

AVERAGE DISCHARGE.--23 years, 72.8 ft³/s, 52,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s, June 12, 1970, gage height, 9.45 ft; no flow at times in 1961-63, 1965, 1977, 1978, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	0200	*3,420	*7.95	May 21	1600	1,770	6.76

Minimum daily discharge, 0.53 ft³/s, July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	24	24	24	28	26	32	129	248	6.1	1.5	10
2	18	24	25	24	26	28	33	146	201	5.9	2.0	12
3	18	24	26	26	26	29	31	170	152	6.5	2.3	11
4	20	24	25	27	26	28	28	182	145	4.7	2.9	10
5	20	23	24	28	26	25	29	203	122	3.3	3.1	9.7
6	20	23	25	28	27	24	30	234	106	2.1	2.7	9.2
7	19	23	26	29	26	23	32	239	87	.84	2.9	12
8	19	27	27	28	26	23	33	219	79	.53	3.0	12
9	20	27	29	27	27	25	36	277	70	2.5	3.1	11
10	21	26	32	26	28	26	37	544	74	3.3	2.7	12
11	23	26	30	26	27	29	37	794	67	5.2	2.6	13
12	23	27	30	25	26	29	34	1110	58	24	2.7	16
13	22	27	29	24	27	30	33	1640	39	19	2.2	17
14	22	26	29	23	26	36	30	2020	37	18	2.0	22
15	22	26	28	22	25	40	30	2380	36	16	13	20
16	24	25	27	20	24	35	33	2040	31	14	33	20
17	26	26	26	19	24	33	40	1380	28	13	17	19
18	25	26	24	18	23	34	63	1010	25	9.8	23	16
19	26	28	22	19	23	30	90	817	28	9.9	23	14
20	24	24	20	20	25	32	113	833	25	9.8	24	12
21	24	26	19	21	27	32	112	1230	23	10	24	10
22	24	24	20	22	27	36	93	872	21	11	21	11
23	23	22	20	23	26	35	112	642	20	12	23	11
24	24	24	20	24	26	34	165	674	16	7.9	22	16
25	24	28	21	25	25	36	211	732	12	8.4	16	9.1
26	24	26	22	26	25	35	178	538	13	12	13	13
27	24	24	22	25	24	35	120	437	6.9	8.0	11	14
28	24	23	23	27	24	34	99	354	6.4	7.1	9.8	17
29	25	22	24	26	25	28	110	308	5.6	6.1	13	18
30	25	23	25	27	---	26	120	285	6.2	13	13	16
31	24	---	25	28	---	27	---	264	---	4.2	9.9	---
TOTAL	695	748	769	757	745	943	2144	22703	1788.1	274.17	344.4	415.0
MEAN	22.4	24.9	24.8	24.4	25.7	30.4	71.5	732	59.6	8.84	11.1	13.8
MAX	26	28	32	29	28	40	211	2380	248	24	33	22
MIN	18	22	19	18	23	23	28	129	5.6	.53	1.5	9.1
AC-FT	1380	1480	1530	1500	1480	1870	4250	45030	3550	544	683	823

CAL YR 1983 TOTAL 56928.23 MEAN 156 MAX 1540 MIN .23 AC-FT 112900
WTR YR 1984 TOTAL 32325.67 MEAN 88.3 MAX 2380 MIN .53 AC-FT 64120

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
19...	1205	28	783	9.0	390	85	43	37	.8	1.2
DEC										
14...	1530	44	742	.5	330	67	39	34	.8	1.2
FEB										
28...	1425	20	691	.5	330	71	37	32	.8	1.6
MAR										
29...	1455	30	648	7.0	300	65	34	27	.7	1.0
MAY										
14...	0810	2050	160	5.5	61	15	5.6	5.9	.3	1.6

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
19...	230	210	3.8	.40	13	530	.72	40	.000	.020
DEC										
14...	230	180	3.8	.10	12	480	.65	56	.100	.000
FEB										
28...	230	170	4.0	.30	13	470	.63	25	.200	.040
MAR										
29...	200	140	3.6	.30	13	400	.55	33	.200	.050
MAY										
14...	65	13	.60	.00	12	93	.13	513	.800	.190

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY

LOCATION.--Lat 42°50'10", long 105°45'30", in NW¼NE¼ sec.17, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.8 mi downstream from Sand Creek, 1.0 mi downstream from Dave Johnston powerplant, and 5.8 mi east of Glenrock city limits.

DRAINAGE AREA.--13,538 mi^2, of which 1,173 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,920 ft, from topographic map. Prior to Oct. 1, 1965, at datum 1.00 ft higher.

REMARKS.--Records good. Flow regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Slight regulation 1.0 mi upstream by storage pond for Dave Johnston powerplant, capacity, 755 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s, May 14, 1965, gage height, 7.10 ft, present datum; minimum daily, 176 ft^3/s, Dec. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,150 ft^3/s, June 10, gage height, 6.39 ft; minimum daily, 377 ft^3/s, Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	1010	775	1120	870	1290	3260	3760	6630	7030	3020	1940
2	1270	1000	1080	1140	886	1200	3230	3910	7360	6940	3000	1940
3	1260	1020	1070	1120	939	1310	3220	4000	7590	6990	3040	1970
4	1250	1010	1160	1160	980	1440	3220	4020	7650	7010	3020	1940
5	1230	1000	1100	1230	1000	1420	3210	4250	7660	6900	3040	1940
6	1250	1010	760	1240	994	1510	3320	4200	7650	6830	3110	1930
7	1240	1010	756	1210	994	1950	3520	4070	8110	6760	2990	1930
8	1240	1100	1050	1220	1040	2230	3550	3930	8630	6440	2850	1930
9	1250	1080	1150	1210	1000	2370	3560	3900	8750	6560	2650	1930
10	1260	1050	1310	1170	1010	2340	3760	4180	8860	6540	2630	1910
11	1290	1050	1290	1150	1080	2350	3950	4670	8970	5640	2620	1940
12	1260	1050	1220	1150	1100	2390	3920	5100	8870	4440	2640	1980
13	1260	1050	1140	1160	1170	2430	3840	5900	8910	4170	2640	1970
14	1270	1050	1090	977	1240	2500	3800	6440	8890	4050	2650	2060
15	1290	1040	1080	722	1210	2950	3790	6730	8910	3680	2650	1900
16	1280	1020	892	744	1160	3420	3780	6630	8850	3470	2810	1750
17	1290	1020	656	716	1160	3400	3790	6120	8590	3110	2910	1720
18	1290	1030	399	588	1150	3420	3790	5560	8580	3020	2970	1720
19	1310	1050	377	544	1110	3420	3780	5210	8560	2950	3090	1670
20	1280	1020	628	716	1060	3400	3860	5130	8430	2930	2940	1690
21	1280	1040	536	795	1080	3420	3820	5580	8140	2900	2770	1660
22	1270	1040	489	863	1200	3480	3750	5510	7920	2920	2240	1660
23	1270	789	601	934	1120	3510	3710	5180	7600	2960	2250	1660
24	1300	891	798	980	994	3450	3700	5290	7550	2920	2180	1700
25	1290	1240	938	1000	1120	3440	3770	5500	7500	2930	2200	1720
26	1280	950	1050	1060	1150	3430	3770	5130	7360	2930	2200	1500
27	1180	868	1120	1010	1170	3380	3650	5140	7150	2900	2180	992
28	883	990	1140	894	1150	3370	3550	4900	7110	2910	2080	783
29	886	1050	1070	830	1170	3350	3650	4700	7070	2970	1980	812
30	1010	851	1040	789	---	3330	3740	5010	7030	3030	1970	1640
31	1010	---	1100	832	---	3320	---	5680	---	2970	1940	---
TOTAL	37979	30379	28865	30274	31307	84220	109260	155330	240880	137800	81260	51887
MEAN	1225	1013	931	977	1080	2717	3642	5011	8029	4445	2621	1730
MAX	1310	1240	1310	1240	1240	3510	3950	6730	8970	7030	3110	2060
MIN	883	789	377	544	870	1200	3210	3760	6630	2900	1940	783
AC-FT	75330	60260	57250	60050	62100	167100	216700	308100	477800	273300	161200	102900

CAL YR 1983 TOTAL 874639 MEAN 2396 MAX 8710 MIN 377 AC-FT 1735000
WTR YR 1984 TOTAL 1019441 MEAN 2785 MAX 8970 MIN 377 AC-FT 2022000

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 18...	1605	1300	686	16.5	250	64	23	54	2	2.8
DEC 14...	1230	943	777	7.0	280	68	26	63	2	2.9
MAY 15...	1130	7540	385	11.0	140	37	12	26	1	2.5
JUL 17...	1130	3110	585	22.0	210	53	20	47	1	2.8

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 18...	130	220	12	.40	9.4	460	.63	1630	.400	.060
DEC 14...	150	240	14	.20	9.7	510	.70	1310	.600	.060
MAY 15...	97	90	5.4	.10	10	240	.33	4910	.600	.130
JUL 17...	130	170	10	.20	6.5	390	.53	3250	.200	.030

06647500 BOX ELDER CREEK AT BOXELDER, WY

LOCATION.--Lat 42°36'44", long 105°51'29", in NE¼NE¼SW¼ sec.32, T.31 N., R.75 W., Converse County, Hydrologic Unit 10180007, on left bank at Hiser Ranch (old Boxelder Post Office), 0.8 mi downstream from Snowshoe Creek, and 17 mi south of Glenrock.

DRAINAGE AREA.--63.0 mi².

PERIOD OF RECORD.--April 1946 to September 1951, October 1961 to September 1967, October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,710 ft, from topographic map. Prior to June 7, 1946, nonrecording gage, and June 8, 1946, to July 21, 1976, water-stage recorder at site 400 ft downstream at different datum.

REMARKS.--Records good except those for winter period and September, which are poor. Diversions above station for irrigation of about 60 acres, of which about 40 acres are below station.

AVERAGE DISCHARGE.--24 years, 38.8 ft³/s, 28,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 ft³/s, May 14, 1965, gage height, 8.58 ft, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	2000	*1,200	*5.35	May 21	1100	1,050	5.15

Minimum daily discharge, 1.0 ft³/s, Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.3	2.8	3.2	3.0	3.0	4.3	55	220	13	6.2	1.5
2	1.6	2.3	3.0	3.2	3.0	3.1	4.5	63	189	12	5.8	1.9
3	2.0	2.3	3.1	3.3	2.8	3.0	4.5	75	164	10	5.9	1.7
4	2.2	2.3	3.2	3.5	3.0	3.0	4.8	83	149	11	5.4	1.5
5	1.9	2.3	3.3	3.6	3.0	2.8	5.0	102	129	9.6	4.9	1.5
6	1.8	2.4	3.4	3.6	3.0	3.0	5.8	105	112	8.5	6.3	1.5
7	1.6	2.5	3.5	3.5	2.9	2.8	6.7	98	106	7.6	5.5	1.5
8	1.6	3.2	3.5	3.4	2.8	2.8	7.7	107	88	7.0	4.5	1.5
9	1.5	3.1	3.6	3.2	2.8	2.9	8.0	187	81	8.8	3.9	1.5
10	1.7	3.1	3.6	3.0	3.0	3.0	7.8	307	71	15	3.6	1.5
11	2.6	3.3	3.5	2.9	3.2	3.0	7.9	382	75	11	3.2	1.6
12	2.7	3.0	3.4	2.8	3.0	3.0	8.4	554	58	8.3	3.7	1.6
13	2.4	3.0	3.4	2.8	3.2	3.0	9.8	648	50	7.2	3.6	1.6
14	2.3	3.1	3.4	2.7	3.3	3.1	10	816	47	6.8	3.9	1.7
15	2.9	2.8	3.3	2.6	3.5	3.2	11	941	44	6.3	5.7	1.7
16	3.2	2.8	3.3	2.5	3.4	3.3	14	919	39	5.9	6.7	1.5
17	2.9	2.9	3.2	2.3	3.5	3.4	23	751	38	5.3	5.2	1.4
18	2.7	2.8	3.2	2.2	3.2	3.5	36	621	39	5.3	6.2	1.3
19	3.0	2.4	3.2	2.3	3.1	3.7	50	566	33	5.3	6.3	1.2
20	2.9	3.0	3.1	2.3	3.0	3.8	53	582	30	5.1	6.2	1.2
21	2.7	3.0	3.1	2.3	3.3	4.1	49	803	27	5.0	6.4	1.2
22	2.5	2.8	3.1	2.4	3.3	4.6	51	644	24	20	9.4	1.2
23	2.3	2.6	3.1	2.4	3.3	4.7	65	528	22	34	8.1	1.3
24	2.7	2.8	3.2	2.5	3.3	5.0	90	601	20	17	6.3	1.4
25	2.6	3.1	3.3	2.6	3.3	5.0	100	544	18	12	7.1	1.6
26	2.5	3.1	3.4	2.7	3.2	5.6	79	447	17	11	5.2	1.8
27	2.4	3.0	3.3	2.8	3.1	4.7	56	372	15	9.1	2.3	2.1
28	2.4	2.9	3.2	2.9	3.0	4.5	94	311	14	8.0	2.1	1.9
29	2.3	2.8	3.2	3.0	3.0	5.9	68	271	13	6.9	1.6	1.8
30	2.3	2.6	3.2	3.0	---	4.7	56	247	11	6.1	1.1	1.7
31	2.3	---	3.2	3.0	---	4.3	---	233	---	6.2	1.0	---
TOTAL	71.6	83.6	101.3	88.5	90.5	115.5	990.2	12963	1943	304.3	153.3	46.4
MEAN	2.31	2.79	3.27	2.85	3.12	3.73	33.0	418	64.8	9.82	4.95	1.55
MAX	3.2	3.3	3.6	3.6	3.5	5.9	100	941	220	34	9.4	2.1
MIN	1.1	2.3	2.8	2.2	2.8	2.8	4.3	55	11	5.0	1.0	1.2
AC-FT	142	166	201	176	180	229	1960	25710	3850	604	304	92

CAL YR 1983 TOTAL 30346.03 MEAN 83.1 MAX 1010 MIN .13 AC-FT 60190
WTR YR 1984 TOTAL 16951.20 MEAN 46.3 MAX 941 MIN 1.0 AC-FT 33620

06647800 BOX ELDER CREEK NEAR BOXELDER, WY

LOCATION.--Lat 42°43'54", long 105°47'14", in NW¼ sec.24, T.32 N., R.75 W., Converse County, Hydrologic Unit 10180007, on left bank 0.2 mi upstream from Converse County Park, 0.9 mi downstream from bridge on Boxelder Road, 1.3 mi downstream from Spring Creek, 9.3 mi north of Boxelder, and 13.5 mi southeast of Glenrock.

DRAINAGE AREA.--136 mi².

PERIOD OF RECORD.--April 1981 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,080 ft, from topographic map.

REMARKS.--Records fair except those during winter period, which are poor. Diversions for irrigation of about 800 acres above station. Additional discharge measurements on Box Elder Creek made closer to the Madison Formation outcropping are listed in the "DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft³/s, May 21, 1983, gage height, 5.24 ft; minimum daily, 0.80 ft³/s, Aug. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft³/s, May 12, gage height, 5.11 ft; minimum daily, 3.2 ft³/s, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	8.1	8.5	9.8	11	9.6	14	144	279	23	13	3.2
2	6.6	7.8	9.4	9.9	11	10	16	177	252	24	13	3.6
3	6.8	7.8	10	10	10	11	14	206	224	23	11	3.9
4	7.3	8.0	11	10	11	10	14	227	210	23	11	4.2
5	7.5	8.2	12	11	11	9.8	16	250	190	20	13	4.3
6	7.3	8.1	11	12	11	9.5	19	260	173	19	13	4.3
7	7.1	8.1	11	12	10	10	23	263	163	16	13	4.7
8	7.1	9.3	11	12	10	9.7	25	282	137	15	11	4.5
9	7.0	9.4	11	11	9.8	9.6	31	403	125	20	10	4.7
10	7.8	9.5	12	11	9.8	9.5	29	634	120	31	9.3	4.6
11	8.7	10	12	11	11	9.5	31	734	126	25	8.7	4.9
12	9.0	11	12	10	9.0	9.8	27	970	106	22	8.3	5.2
13	8.6	9.9	11	9.8	10	10	27	1100	95	18	8.4	5.0
14	8.3	9.2	12	9.5	12	12	28	1230	87	16	8.4	5.0
15	8.8	7.7	12	9.4	13	13	33	1360	83	14	8.2	5.4
16	9.1	8.4	11	9.0	11	13	43	1310	74	13	9.5	5.0
17	9.0	8.3	10	8.6	12	14	66	1020	67	12	9.9	4.9
18	8.7	9.7	9.9	8.5	11	13	90	816	68	12	8.9	4.5
19	9.1	8.4	9.4	8.5	10	14	109	730	63	11	8.6	4.3
20	9.4	8.0	8.8	8.5	10	15	129	739	56	11	8.2	4.3
21	8.8	7.5	8.4	8.5	12	16	120	1010	50	11	8.3	4.2
22	8.7	6.9	7.9	8.5	9.8	17	122	775	46	11	8.1	4.4
23	8.3	7.2	7.6	8.7	11	16	157	638	41	44	9.0	4.7
24	8.2	8.4	8.2	8.9	10	18	217	709	40	29	8.0	5.4
25	8.5	9.8	8.7	9.2	11	17	233	694	36	23	7.0	5.8
26	8.5	12	9.2	9.5	11	17	177	555	34	19	6.4	6.2
27	8.4	11	9.9	10	11	17	154	462	28	17	5.8	6.1
28	8.1	9.9	9.7	11	10	16	160	379	25	15	4.2	6.1
29	8.0	8.6	9.8	11	9.4	16	160	335	21	15	3.7	6.1
30	8.0	7.8	9.8	11	---	15	142	319	22	13	3.5	6.5
31	8.0	---	9.7	11	---	16	---	297	---	12	3.6	---
TOTAL	250.8	264.0	313.9	308.8	308.8	403.0	2426	19028	3041	577	272.0	146.0
MEAN	8.09	8.80	10.1	9.96	10.6	13.0	80.9	614	101	18.6	8.77	4.87
MAX	9.4	12	12	12	13	18	233	1360	279	44	13	6.5
MIN	6.1	6.9	7.6	8.5	9.0	9.5	14	144	21	11	3.5	3.2
AC-FT	497	524	623	613	613	799	4810	37740	6030	1140	540	290

CAL YR 1983 TOTAL 49986.1 MEAN 137 MAX 1220 MIN 4.6 AC-FT 99150
WTR YR 1984 TOTAL 27339.3 MEAN 74.7 MAX 1360 MIN 3.2 AC-FT 54230

06647810 BOX ELDER CREEK AT CONVERSE COUNTY PARK, NEAR CAREYHURST, WY

LOCATION.--Lat 42°46'11", long 105°46'21", in SW¼ sec.6, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, Converse County Park, on left bank 0.1 mi upstream from Park boundary, 2.3 mi upstream from Hunton Creek, 7.8 mi southwest of Careyhurst, and 7.8 mi southeast of Glenrock.

DRAINAGE AREA.--138 mi².

PERIOD OF RECORD.--May 1981 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,240 ft, from topographic map. No facilities available to measure flows greater than 400 ft³/s.

REMARKS.--Records fair except those for winter period and period of no gage-height record, Dec. 18 to Feb. 28, which are poor. Diversions for irrigation of about 800 acres above station. Additional measurements on Box Elder Creek closer to the Madison Formation outcropping are listed in the "DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft³/s, May 21, 1983, gage height, 6.50 ft, from rating curve extended above 400 ft³/s on the basis of peak flow at station 06647800; minimum daily discharge, 0.92 ft³/s, Aug. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft³/s, May 12, gage height, 6.27 ft, from rating curve extended above 400 ft³/s on the basis of peak flow at station 06647800; minimum daily, 3.5 ft³/s, Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	8.2	8.6	9.4	11	9.0	15	154	283	20	13	3.6
2	6.9	8.0	9.4	9.6	11	8.6	14	186	253	21	15	3.5
3	7.0	8.0	10	9.9	10	9.5	14	224	220	20	13	4.1
4	7.5	8.1	11	10	11	9.0	13	245	208	20	12	4.1
5	7.5	8.3	11	11	11	8.7	15	275	193	18	13	4.5
6	7.3	8.1	10	12	11	9.4	18	300	180	17	14	4.3
7	6.9	8.2	10	12	10	8.9	22	293	167	15	14	4.7
8	6.9	10	10	12	9.8	9.0	23	301	143	14	13	4.7
9	6.8	9.5	10	11	10	9.5	32	423	131	16	11	4.6
10	7.7	9.3	11	11	9.9	9.5	29	651	125	28	10	4.6
11	9.1	11	11	11	11	9.5	32	767	130	22	9.3	4.7
12	9.3	11	11	10	9.5	9.6	28	996	110	20	8.7	5.4
13	8.9	10	10	9.6	10	10	28	1110	95	17	8.7	5.4
14	8.3	9.3	11	9.3	11	12	27	1230	89	15	8.7	5.2
15	9.0	7.5	11	8.9	12	13	31	1290	84	14	8.7	5.3
16	9.2	8.6	10	8.7	11	13	41	1230	76	13	9.3	5.3
17	9.2	8.3	10	8.2	12	14	68	1010	68	13	11	5.0
18	8.7	9.7	9.5	7.6	11	14	96	852	68	12	8.9	4.8
19	9.2	8.4	10	7.5	10	14	115	753	63	12	9.0	4.5
20	9.4	8.2	9.1	7.6	9.8	15	142	766	55	12	8.6	4.4
21	8.8	7.6	8.5	7.9	11	16	127	1010	48	11	9.0	4.5
22	8.4	7.0	8.1	8.1	10	18	127	835	42	12	9.1	4.6
23	8.1	7.2	7.8	8.4	11	16	163	688	38	42	10	4.8
24	8.3	8.6	8.4	8.7	10	17	224	739	36	29	9.0	5.9
25	8.5	10	8.9	9.0	11	18	244	757	33	23	7.7	6.5
26	8.3	12	9.4	9.4	11	17	178	613	30	19	7.2	6.5
27	7.9	11	9.7	10	10	17	158	465	25	17	6.4	6.3
28	7.8	10	9.0	11	9.7	16	166	400	22	15	4.9	6.5
29	7.6	8.7	9.3	11	8.9	14	165	343	19	16	4.0	6.7
30	7.8	7.9	9.5	11	---	14	147	320	19	14	3.7	7.0
31	7.8	---	9.7	11	---	15	---	300	---	13	3.7	---
TOTAL	250.6	267.7	301.9	301.8	304.6	393.2	2502	19526	3053	550	293.6	152.0
MEAN	8.08	8.92	9.74	9.74	10.5	12.7	83.4	630	102	17.7	9.47	5.07
MAX	9.4	12	11	12	12	18	244	1290	283	42	15	7.0
MIN	6.5	7.0	7.8	7.5	8.9	8.6	13	154	19	11	3.7	3.5
AC-FT	497	531	599	599	604	780	4960	38730	6060	1090	582	301

CAL YR 1983 TOTAL 50193.0 MEAN 138 MAX 1210 MIN 4.8 AC-FT 99560
WTR YR 1984 TOTAL 27896.4 MEAN 76.2 MAX 1290 MIN 3.5 AC-FT 55330

06647890 LITTLE BOX ELDER CREEK NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'04", long 105°44'25", in SE¼SW¼SE¼ sec.8, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 4.6 mi southwest of Barber Ranch and 7.6 mi southwest of Careyhurst.

DRAINAGE AREA.--7.18 mi^2.

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and bedrock control. Altitude of gage is 5,670 ft, from topographic map. Prior to Sept. 25, 1980, at site 170 ft downstream at different datum.

REMARKS.--Records good except those for December, which are poor. No diversion above station.

AVERAGE DISCHARGE.--10 years, 1.68 ft^3/s, 1,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, a193 ft^3/s, July 25, 1981, gage height, b2.11 ft, from rating curve extended above 62 ft^3/s on basis of weir flow computation of peak flow; maximum gage height, 3.70 ft, July 25, 1981 (backwater from log jam), from floodmarks; minimum daily discharge, 0.32 ft^3/s, Nov. 21, 1979.

a-May have been exceeded when the log jam that produced the maximum gage height on July 25, 1981 broke, releasing an unknown discharge.
b-About.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8.0 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 21	1345	26	1.42	July 9	1945	13	1.26
May 12	1745	*71	*1.69				

Minimum daily discharge, 0.43 ft^3/s, Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.1	1.1	.97	.91	1.1	2.3	13	6.0	2.0	1.4	1.0
2	1.1	1.1	1.1	.97	.89	1.1	2.3	15	5.7	1.9	1.3	1.0
3	1.1	1.1	1.1	.99	.89	1.1	2.2	17	5.4	2.2	1.2	1.0
4	1.1	1.1	1.1	1.0	.89	1.1	2.4	17	5.3	2.0	1.2	1.0
5	1.1	1.1	1.0	1.1	.89	1.1	2.7	19	5.4	1.9	1.2	1.0
6	1.1	1.1	.93	1.1	.89	1.1	3.0	19	5.5	1.8	1.2	1.1
7	1.1	1.1	.99	1.1	.89	1.1	3.2	18	4.7	1.8	1.2	1.1
8	1.1	1.2	1.1	1.1	.89	1.2	3.5	18	4.4	1.7	1.1	1.1
9	1.1	1.1	1.1	1.1	.90	1.1	4.2	29	4.2	3.1	1.1	1.1
10	1.1	1.1	1.1	1.1	.89	1.2	4.3	33	4.1	2.1	1.1	1.1
11	1.3	1.3	1.1	1.1	.89	1.2	4.2	30	4.4	1.8	1.1	1.1
12	1.1	1.1	1.1	.98	.90	1.2	3.9	37	3.8	1.7	1.1	1.1
13	1.1	1.1	1.1	.97	.93	1.3	3.8	32	3.7	1.7	1.1	1.1
14	1.1	1.1	1.1	.96	1.0	1.9	3.8	32	3.5	1.6	1.1	1.1
15	1.1	1.1	1.0	.89	.97	2.1	4.3	29	3.3	1.6	1.1	1.1
16	1.1	1.1	.95	.85	.99	2.0	5.5	22	3.2	1.6	1.1	1.1
17	1.1	1.1	.83	.78	.96	1.8	7.7	18	3.1	1.5	1.1	1.1
18	1.1	1.1	.80	.78	.98	1.9	8.7	15	3.0	1.5	1.1	1.1
19	1.2	1.1	.83	.85	.90	1.9	12	15	2.8	1.5	1.1	1.0
20	1.1	1.1	.77	.92	.96	2.2	10	16	2.7	1.5	1.1	1.0
21	1.1	1.0	.66	.97	1.1	2.9	12	18	2.5	1.4	1.1	1.1
22	1.1	.96	.58	.97	.99	3.0	9.2	12	2.4	1.8	1.1	1.1
23	1.1	.90	.51	.97	.97	2.8	14	12	2.4	1.7	1.1	1.1
24	1.1	.97	.47	.97	.97	3.0	16	12	2.3	1.5	1.1	1.1
25	1.1	1.1	.45	.99	.98	3.0	14	9.4	2.2	1.4	1.1	1.2
26	1.1	1.2	.43	.97	1.0	2.7	11	8.7	2.2	1.3	1.0	1.1
27	1.1	1.1	.78	.93	.97	2.6	8.9	8.8	2.1	1.3	1.0	1.1
28	1.1	1.1	.90	.93	.95	2.4	9.4	7.7	2.0	1.2	1.0	1.1
29	1.1	1.1	.86	.91	1.1	2.4	9.1	7.4	2.0	1.2	.97	1.1
30	1.1	1.0	.93	.91	---	2.3	9.7	7.1	2.0	1.3	.98	1.1
31	1.1	---	.99	.90	---	2.3	---	6.8	---	1.2	.99	---
TOTAL	34.4	32.73	27.76	30.03	27.44	58.1	207.3	553.9	106.3	51.8	34.44	32.4
MEAN	1.11	1.09	.90	.97	.95	1.87	6.91	17.9	3.54	1.67	1.11	1.08
MAX	1.3	1.3	1.1	1.1	1.1	3.0	16	37	6.0	3.1	1.4	1.2
MIN	1.1	.90	.43	.78	.89	1.1	2.2	6.8	2.0	1.2	.97	1.0
AC-FT	68	65	55	60	54	115	411	1100	211	103	68	64

CAL YR 1983 TOTAL 1305.02 MEAN 3.58 MAX 37 MIN .43 AC-FT 2590
WTR YR 1984 TOTAL 1196.60 MEAN 3.27 MAX 37 MIN .43 AC-FT 2370

06647900 LITTLE BOX ELDER CREEK AT LITTLE BOX ELDER CAVE, NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'38", long 105°43'33", in NE¼SE¼NW¼ sec.9, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi southwest of Little Box Elder Cave, 3.6 mi southwest of Barber Ranch, and 6.6 mi southwest of Careyhurst.

DRAINAGE AREA.--8.47 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,480 ft, from topograhic map.

REMARKS.--Records fair except those for February and September, which are poor. One small detention reservoir above station.

AVERAGE DISCHARGE.--10 years, 0.61 ft³/s, 442 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50 ft³/s, May 12, 1984, gage height, 2.02 ft; maximum gage height, 2.07 ft, May 18, 1978; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft³/s, May 12 gage height, 2.02 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.15	.00	.00	.00	.59	1.2	6.4	4.9	1.1	.64	.28
2	.25	.17	.00	.00	.04	.33	1.1	8.0	3.8	1.0	.64	.25
3	.25	.19	.00	.00	.09	.10	1.1	11	3.5	1.1	.59	.25
4	.28	.19	.00	.00	.00	.00	1.1	13	3.1	1.1	.55	.25
5	.25	.17	.00	.00	.06	.00	1.3	13	3.1	1.0	.51	.23
6	.23	.17	.00	.00	.10	.00	1.7	14	3.7	1.0	.51	.25
7	.19	.19	.00	.00	.03	.00	1.7	13	3.5	.87	.47	.25
8	.21	.25	.00	.00	.05	.00	1.8	13	3.5	.87	.43	.23
9	.19	.17	.00	.00	.34	.00	1.9	22	3.0	1.0	.43	.23
10	.21	.21	.00	.00	.70	.00	1.9	28	2.5	1.9	.43	.23
11	.33	.23	.00	.00	.35	.00	2.0	25	2.2	1.3	.43	.22
12	.25	.21	.00	.00	.21	.15	2.0	28	2.2	.87	.40	.21
13	.23	.17	.00	.00	.50	.30	1.9	27	2.1	.87	.40	.21
14	.21	.17	.00	.00	.23	.33	2.0	29	2.0	.87	.40	.20
15	.23	.16	.00	.00	.04	.33	2.0	26	1.9	.81	.40	.20
16	.21	.13	.00	.00	.10	.55	2.0	16	1.9	.75	.40	.20
17	.21	.17	.00	.00	.18	1.5	2.4	11	1.8	.75	.36	.19
18	.19	.21	.00	.00	.23	1.7	2.7	9.8	1.8	.75	.36	.19
19	.23	.17	.00	.00	.29	1.8	3.1	9.4	1.8	.69	.36	.18
20	.21	.11	.00	.00	.35	1.7	4.4	9.4	1.7	.69	.36	.18
21	.19	.05	.00	.00	.43	1.7	4.9	13	1.6	.69	.36	.18
22	.17	.00	.00	.00	.43	1.6	5.1	7.3	1.5	.87	.33	.17
23	.15	.00	.00	.00	.47	1.6	5.4	6.4	1.3	1.1	.33	.17
24	.21	.00	.00	.00	.51	1.6	6.4	7.3	1.2	.75	.30	.17
25	.19	.00	.00	.00	.55	1.6	10	5.9	1.2	.69	.30	.16
26	.17	.00	.00	.00	.55	1.5	8.0	5.4	1.1	.69	.30	.16
27	.17	.00	.00	.00	.55	1.5	6.4	5.6	1.1	.59	.28	.16
28	.17	.00	.00	.00	.55	1.5	6.4	5.9	.93	.59	.28	.15
29	.17	.00	.00	.00	.59	1.3	6.4	5.9	1.0	.59	.28	.15
30	.17	.00	.00	.00	---	1.3	6.4	5.6	1.0	.64	.25	.15
31	.15	---	.00	.00	---	1.2	---	5.4	---	.69	.25	---
TOTAL	6.50	3.64	.00	.00	8.52	25.78	104.7	405.7	65.93	27.18	12.33	6.05
MEAN	.21	.12	.000	.000	.29	.83	3.49	13.1	2.20	.88	.40	.20
MAX	.33	.25	.00	.00	.70	1.8	10	29	4.9	1.9	.64	.28
MIN	.15	.00	.00	.00	.00	.00	1.1	5.4	.93	.59	.25	.15
AC-FT	13	7.2	.00	.00	17	51	208	805	131	54	24	12

CAL YR 1983 TOTAL 768.23 MEAN 2.10 MAX 33 MIN .00 AC-FT 1520
WTR YR 1984 TOTAL 666.33 MEAN 1.82 MAX 29 MIN .00 AC-FT 1320

06647910 LITTLE BOX ELDER SPRING NEAR CAREYHURST, WY

LOCATION.--Lat 42°46'10", long 105°42'08", in SE¼NW¼SE¼ sec.3, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, in spring house, 2.4 mi southwest of Barber Ranch, and 5.7 mi south of Careyhurst.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and Cipolletti weir. Altitude of gage is 5,310 ft, from topographic map.

REMARKS.--Records fair except those for October, May to September, which are poor. No independent verification of theoritical stage-discharge rating. Flow rises inside the spring house, drops over the weir, and exits the house through a pipeline to Douglas.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3.5 ft³/s, May 22-28, 1983; minimum daily, 1.7 ft³/s many days during 1982 and 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3.2 ft³/s, Apr. 20, Apr. 22 to July 31; minimum daily, 2.4 ft³/s, Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
2	3.1	3.0	2.8	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.1	3.1
3	3.1	3.0	2.8	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.1	3.1
4	3.1	3.0	2.8	2.9	2.9	2.7	2.9	3.2	3.2	3.2	3.1	3.1
5	2.7	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
6	2.4	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
7	3.1	3.0	2.8	2.9	2.9	2.7	3.0	3.2	3.2	3.2	3.1	3.1
8	3.1	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
9	3.1	3.0	2.8	2.9	2.9	2.7	3.0	3.2	3.2	3.2	3.1	3.1
10	3.1	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
11	3.1	3.0	2.8	2.9	2.8	2.8	3.0	3.2	3.2	3.2	3.1	3.1
12	3.1	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
13	3.1	3.0	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
14	3.1	2.9	2.8	2.9	2.9	2.8	3.0	3.2	3.2	3.2	3.1	3.1
15	3.1	2.9	2.8	2.9	2.8	2.8	3.0	3.2	3.2	3.2	3.1	3.1
16	3.1	3.0	2.8	2.9	2.8	2.8	3.1	3.2	3.2	3.2	3.1	3.1
17	3.1	3.0	2.8	2.9	2.8	2.8	3.1	3.2	3.2	3.2	3.1	3.1
18	3.1	3.0	2.9	2.9	2.8	2.8	3.1	3.2	3.2	3.2	3.1	3.1
19	3.1	2.9	2.9	2.9	2.8	2.8	3.1	3.2	3.2	3.2	3.1	3.1
20	3.1	3.0	2.9	2.9	2.8	2.8	3.2	3.2	3.2	3.2	3.1	3.1
21	3.1	2.9	2.9	2.9	2.8	2.8	3.1	3.2	3.2	3.2	3.1	3.1
22	3.1	2.9	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
23	3.2	2.9	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
24	3.0	2.9	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
25	3.0	2.9	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
26	3.0	2.8	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
27	3.1	2.8	2.9	2.9	2.7	2.9	3.2	3.2	3.2	3.2	3.1	3.1
28	3.0	2.8	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
29	3.0	2.8	2.9	2.9	2.8	2.9	3.2	3.2	3.2	3.2	3.1	3.1
30	3.0	2.8	2.9	2.9	---	2.9	3.2	3.2	3.2	3.2	3.1	3.1
31	3.0	---	2.9	2.9	---	3.0	---	3.2	---	3.2	3.1	---
TOTAL	94.4	88.2	88.2	89.9	82.4	87.6	92.2	99.2	96.0	99.2	96.1	93.0
MEAN	3.05	2.94	2.85	2.90	2.84	2.83	3.07	3.20	3.20	3.20	3.10	3.10
MAX	3.2	3.0	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.1
MIN	2.4	2.8	2.8	2.9	2.7	2.7	2.9	3.2	3.2	3.2	3.1	3.1
AC-FT	187	175	175	178	163	174	183	197	190	197	191	184

CAL YR 1983 TOTAL 1024.0 MEAN 2.81 MAX 3.5 MIN 1.7 AC-FT 2030
WTR YR 1984 TOTAL 1106.4 MEAN 3.02 MAX 3.2 MIN 2.4 AC-FT 2190

06647920 COTTONWOOD CREEK NEAR CAREYHURST, WY

LOCATION.--Lat 42°44'16", long 105°40'31", in NE¼SE¼SE¼ sec.14, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 4.2 mi south of Barber Ranch, 5.6 mi upstream from Little Box Elder Creek, and 7.7 mi south of Careyhurst.

DRAINAGE AREA.--2.33 mi^2.

PERIOD OF RECORD.--March 1981 to September 1984 (discontinued).

GAGE.--Water-stage recorder and bedrock control. Altitude of gage is 5,810 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Nov. 5 to Dec. 27, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33 ft^3/s, July 27, 1982, gage height, 2.62 ft, from rating curve extended above 8.0 ft^3/s on basis of slope-area determination of peak flow; maximum gage height, 2.93 ft Feb. 6, 1982, backwater from ice; minimum daily discharge, 0.20 ft^3/s Nov. 12, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft^3/s, May 12, gage height, 2.59 ft, from rating curve extended above 8.0 ft^3/s on basis of slope-area determination of peak flow; minimum daily, 0.42 ft^3/s, Dec. 23.

REVISIONS.--The maximum discharge for water year 1983 has been revised to 20 ft^3/s, July 22, 1983, gage height, 2.59 ft; revised daily discharges, in cubic feet per second, for the high-water periods in April and May 1983, are given below. These figures supersede those published in the report for 1983.

Apr. 18..................	4.0	Apr. 23..................	9.1	Apr. 28..................	5.5
19..................	5.7	24..................	12	29..................	5.6
20..................	6.6	25..................	12	30..................	5.5
21..................	7.4	26..................	7.9	May 1..................	5.2
22..................	8.3	27..................	5.9	19..................	12

Month	Total	Mean	Max	Min	Ac-ft
April 1983	123.2	4.11	12	1.2	244
May 1983	131.3	4.24	12	1.8	260
Wtr Yr 1983	478.42	1.31	12	.38	949

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.58	.52	.51	.51	.59	1.1	4.3	2.0	1.1	.74	.66
2	.50	.58	.52	.51	.50	.59	1.1	5.6	1.8	1.1	.74	.66
3	.50	.58	.54	.51	.49	.59	1.1	7.1	1.8	1.1	.74	.66
4	.50	.58	.54	.51	.51	.59	1.2	6.4	1.7	1.1	.74	.66
5	.50	.56	.54	.51	.51	.59	1.4	6.0	1.9	1.0	.74	.66
6	.50	.56	.54	.51	.51	.57	1.5	5.6	2.2	.96	.74	.66
7	.50	.56	.54	.51	.51	.56	1.5	5.3	1.5	.95	.74	.66
8	.50	.56	.54	.51	.51	.58	1.7	6.0	1.5	.84	.74	.66
9	.50	.56	.56	.50	.51	.59	1.9	11	1.5	1.2	.74	.66
10	.51	.56	.57	.50	.51	.64	1.9	11	1.4	.93	.74	.66
11	.59	.57	.56	.50	.50	.67	1.8	8.8	1.4	.84	.74	.66
12	.54	.56	.55	.50	.54	.67	1.6	11	1.3	.84	.74	.66
13	.50	.56	.55	.49	.52	.67	1.5	10	1.2	.84	.74	.66
14	.50	.56	.54	.47	.54	.99	1.5	9.3	1.2	.84	.74	.66
15	.50	.56	.53	.45	.50	1.1	1.8	8.2	1.2	.84	.74	.66
16	.50	.56	.53	.43	.57	1.1	2.8	6.0	1.2	.84	.74	.66
17	.50	.56	.52	.49	.59	.97	4.5	4.9	1.1	.84	.74	.66
18	.51	.56	.51	.51	.52	.97	5.2	4.3	1.1	.84	.74	.66
19	.58	.56	.49	.51	.50	.97	6.6	4.3	1.1	.84	.74	.66
20	.58	.54	.48	.51	.53	1.0	5.6	4.5	1.1	.84	.74	.66
21	.58	.54	.45	.51	.59	1.2	4.0	5.3	1.1	.84	.74	.66
22	.58	.52	.43	.51	.53	1.3	4.1	3.6	1.1	.88	.74	.66
23	.58	.52	.42	.51	.53	1.3	6.1	3.6	1.1	.85	.74	.66
24	.58	.52	.44	.51	.55	1.4	6.2	4.0	1.1	.84	.74	.66
25	.58	.54	.48	.51	.53	1.4	5.4	3.3	1.1	.80	.74	.66
26	.58	.52	.50	.51	.51	1.2	4.1	3.0	1.1	.74	.74	.66
27	.58	.50	.51	.53	.50	1.2	3.1	3.1	1.1	.74	.71	.66
28	.58	.50	.51	.51	.49	1.1	2.9	2.6	1.1	.74	.66	.66
29	.58	.50	.52	.51	.55	1.1	2.9	2.6	1.1	.74	.66	.66
30	.58	.50	.52	.51	---	1.1	3.1	2.5	1.1	.74	.66	.66
31	.58	---	.51	.50	---	1.0	---	2.4	---	.74	.66	---
TOTAL	16.69	16.43	15.96	15.56	15.16	28.30	89.2	175.6	40.2	27.33	22.59	19.80
MEAN	.54	.55	.51	.50	.52	.91	2.97	5.66	1.34	.88	.73	.66
MAX	.59	.58	.57	.53	.59	1.4	6.6	11	2.2	1.2	.74	.66
MIN	.50	.50	.42	.43	.49	.56	1.1	2.4	1.1	.74	.66	.66
AC-FT	33	33	32	31	30	56	177	348	80	54	45	39

CAL YR 1983 TOTAL 520.89 MEAN 1.43 MAX 18 MIN .42 AC-FT 1030
WTR YR 1984 TOTAL 482.82 MEAN 1.32 MAX 11 MIN .42 AC-FT 958

06647990 BOX ELDER CREEK BELOW INTERSTATE 25, NEAR CAREYHURST, WY

LOCATION.--Lat 42°49'41", long 105°40'33", in SW¼NE¼SE¼ sec.13, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, 300 ft downstream from bridge on old U.S. Highway 20-26, 1.5 mi south of Careyhurst, 1.9 mi downstream from I-25, and 3.2 mi upstream from mouth.

PERIOD OF RECORD.--June 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 06...	1810	5.9	435	14.0	180	46	16	24	.8	3.0
JAN 06...	1330	15	404	.0	160	43	13	26	.9	2.5
MAY 14...	1130	1320	125	8.5	50	14	3.6	5.9	.4	1.3
JUL 18...	1500	.32	736	23.5	290	75	24	63	2	4.0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	190	46	3.4	.20	21	270	.37	4.4	.000	.120
JAN 06...	160	50	4.2	.20	18	250	.34	10	.200	.020
MAY 14...	49	13	1.4	.10	11	80	.11	284	.200	.100
JUL 18...	270	130	7.7	.20	25	490	.67	.42	.000	.010

06649000 LA PRELE CREEK NEAR DOUGLAS, WY

LOCATION.--Lat 42°40'52", long 105°37'48", in SW¼NE¼SW¼ sec.5, T.31 N., R.73 W., Converse County, Hydrologic Unit 10180007, on right bank 0.8 mi upstream from La Prele Reservoir and 13.5 mi southwest of Douglas.

DRAINAGE AREA.--135 mi^2.

PERIOD OF RECORD.--August 1919 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WSP 1918: 1920(M), 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is about 5,600 ft, from nearby line of levels.

REMARKS.--Records fair. Several small reservoirs above station, combined capacity, about 140 acre-ft, for irrigation. Diversions for irrigation of about 4,600 acres above station. Water is imported from La Bonte Creek and Wagon Hound Creek basins into Little La Prele Creek, upstream from the station, for irrigation below La Prele Reservoir.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1920-71), 40.4 ft^3/s, 29,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft^3/s, June 12, 1970, gage height, 13.01 ft, from rating curve extended above 2,700 ft^3/s, on basis of slope-area measurement of peak flow; no flow at times in 1936, 1939-40, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft^3/s, May 12, gage height 10.55 ft; minimum daily during period of operation, 1.9 ft^3/s, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						9.9	18	140	164	4.5	13	1.9
2						9.9	18	165	140	3.8	5.7	2.0
3						10	18	194	126	3.8	4.9	2.7
4						9.9	18	222	118	3.6	4.7	2.9
5						10	22	250	103	3.8	4.7	2.5
6						10	26	269	97	4.0	4.9	2.5
7						10	30	250	92	4.2	4.5	2.6
8						10	28	250	78	3.7	4.4	2.7
9						11	37	334	68	4.2	4.7	2.7
10						10	35	532	64	5.5	4.7	2.7
11						10	36	560	72	6.6	4.5	2.7
12						10	29	651	60	3.7	4.4	2.9
13						12	28	762	54	3.7	4.5	2.9
14						22	26	748	51	3.7	4.4	2.9
15						21	28	750	49	3.8	4.5	2.9
16						18	35	716	43	4.0	4.4	2.9
17						18	54	598	46	4.2	3.8	2.9
18						17	90	487	44	4.4	3.4	2.9
19						16	113	415	39	4.4	3.4	2.9
20						16	141	408	29	4.2	3.4	2.9
21						18	114	561	23	4.0	3.4	2.9
22						24	113	475	18	4.5	3.2	2.9
23						22	138	372	14	6.6	3.2	2.9
24						22	192	406	14	5.3	3.0	3.0
25						26	205	446	9.9	6.6	3.2	3.2
26						23	165	365	12	8.0	3.2	3.5
27						22	129	293	14	5.1	2.7	3.5
28						20	155	235	12	4.9	2.6	4.5
29						20	132	204	10	4.9	2.5	11
30						20	130	177	5.3	4.7	2.5	10
31						19	---	168	---	4.9	2.2	---
TOTAL						496.7	2303	12403	1669.2	143.3	128.6	101.4
MEAN						16.0	76.8	400	55.6	4.62	4.15	3.38
MAX						26	205	762	164	8.0	13	11
MIN						9.9	18	140	5.3	3.6	2.2	1.9
AC-FT						985	4570	24600	3310	284	255	201

06649500 LA PRELE CREEK NEAR ORPHA, WY

LOCATION.--Lat 42°50'12", long 105°19'25", in SE¼NW¼NW¼ sec.15, T.33 N., R.72 W., Converse County, Hydrologic Unit 10180007, at bridge on county road, 1.5 mi upstream from mouth, 1.5 mi southeast of Orpha, and 7.5 mi northwest of Douglas.

PERIOD OF RECORD.--June 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
06...	1630	10	789	13.0	250	70	18	88	3	9.8
JAN										
06...	1545	16	566	.0	160	46	10	60	2	12
MAY										
11...	1430	352	326	11.5	140	42	8.4	20	.8	3.4
JUL										
19...	1415	.66	848	23.0	250	67	20	100	3	11

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
06...	340	82	10	.50	35	520	.70	14	.200	.000
JAN										
06...	230	58	9.3	.20	28	360	.49	16	.500	.180
MAY										
11...	150	24	3.4	.20	19	210	.29	200	.000	.190
JUL										
19...	340	100	12	.40	37	550	.75	.98	.200	.010

06650500 WAGONHOUND CREEK NEAR LA BONTE, WY

LOCATION.--Lat 42°39'35", long 105°22'10", in SW¼NE¼ sec.16, T.31 N., R.71 W., Converse County, Hydrologic Unit 10180008, 0.6 mi upstream from mouth, 3.5 mi northeast of La Bonte, and 6.0 mi south of Douglas.

PERIOD OF RECORD.--June 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
06...	0935	.91	1850	8.5	1100	340	60	58	.8	7.1
JAN										
03...	1420	3.6	1500	.5	800	250	43	56	.9	5.7
MAY										
29...	1030	33	874	12.0	430	130	26	36	.8	5.1
JUL										
19...	1600	1.3	1620	20.0	880	270	49	54	.8	6.1

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
06...	230	920	8.5	.20	26	1600	2.1	3.8	.80	.020
JAN										
03...	230	670	8.3	.10	25	1200	1.6	12	.70	.010
MAY										
29...	200	270	5.8	.30	23	620	.84	55	.40	.260
JUL										
19...	230	760	7.7	.20	24	1300	1.8	4.6	.50	.000

06651500 LA BONTE CREEK NEAR LA BONTE, WY

LOCATION.--Lat 42°38'59", long 105°21'36", in SE¼SW¼ sec.15, T.31 N., R.71 W., Converse County, Hydrologic Unit 10180008, 1.1 mi upstream from mouth, 3.0 mi northeast of La Bonte, and 7.3 mi south of Douglas.

PERIOD OF RECORD.--June 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
06...	1205	11	690	12.0	290	88	18	54	1	5.5
JAN										
03...	1630	19	654	.0	240	75	14	52	2	5.0
MAY										
29...	1145	262	219	13.0	95	29	5.6	12	.6	1.8
JUL										
19...	1715	4.8	698	25.5	270	81	17	48	1	5.4

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
06...	240	150	6.6	.20	31	500	.68	15	.100	.040
JAN										
03...	200	140	6.9	.40	26	440	.60	23	.300	.010
MAY										
29...	84	28	2.6	.10	17	150	.20	104	.200	.030
JUL										
19...	240	140	5.8	.20	29	470	.64	6.1	.200	.000

06652000 NORTH PLATTE RIVER AT ORIN, WY

LOCATION.--Lat 42°39'02", long 105°09'46", in SE¼SW¼SW¼ sec.17, T.31 N., R.69 W., Converse County, Hydrologic Unit 10180008, on right bank 630 ft downstream from bridge on U.S. Highway 87, 0.2 mi upstream from Shawnee Creek, and 1.5 mi east of Orin.

DRAINAGE AREA.--14,888 mi², of which 1,193 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,660 ft, from topographic map. Jan. 1, 1895, to Nov. 30, 1899, and May 1 to Sept. 30, 1924, nonrecording gage at railroad bridge just upstream from U.S. Highway 87 at different datum. Apr. 1, 1917, to Sept. 30, 1918, nonrecording gage at site 2.2 mi downstream at different datum.

REMARKS.--Records good except those for December and January, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Twenty-two discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s, May 15, 1965, gage height, 10.00 ft; maximum gage height, 10.45 ft, June 12, 1970; minimum daily discharge determined, 170 ft³/s, Sept. 11-14, 1899.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,400 ft³/s, May 15, gage height, 7.42 ft; minimum daily, 365 ft³/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	1140	970	1260	970	1370	3520	4590	6730	7100	3150	1860
2	1410	1150	1000	1260	1000	1520	3470	4780	7680	7090	3330	1840
3	1430	1130	1120	1260	1020	1420	3490	5200	8180	6980	3150	1850
4	1410	1130	1170	1330	1060	1540	3460	5350	8390	7210	3130	1860
5	1380	1130	1100	1420	1070	1600	3460	5470	8340	7110	3110	1830
6	1340	1120	1090	1500	1100	1610	3450	5830	8290	6980	3220	1840
7	1350	1150	1040	1480	1100	1810	3700	5710	8400	6920	3180	1860
8	1350	1220	1300	1410	1110	2240	3820	5510	8990	6640	3000	1870
9	1370	1270	1410	1400	1140	2570	3850	5420	9340	6620	2820	1910
10	1380	1240	1380	1380	1110	2570	3930	5920	9430	6810	2690	1900
11	1410	1220	1540	1350	1130	2580	4220	7030	9530	6450	2670	1910
12	1410	1230	1530	1290	1160	2610	4290	7890	9520	5020	2670	1960
13	1380	1220	1450	1200	1210	2650	4150	9600	9370	4230	2680	1990
14	1380	1210	1370	1120	1410	2700	4050	10100	9370	4130	2660	2040
15	1410	1190	1290	930	1420	2780	4040	10700	9290	3910	2630	2070
16	1390	1190	1170	780	1360	3550	4090	10800	9320	3490	2710	1880
17	1400	1190	830	710	1330	3760	4170	10000	9050	3280	2820	1810
18	1410	1200	550	630	1350	3770	4340	8730	8860	2990	2910	1770
19	1440	1220	405	630	1360	3770	4440	7700	8790	2900	3160	1740
20	1440	1220	390	640	1330	3670	4760	7190	8650	2870	3040	1690
21	1430	1230	425	780	1290	3650	4810	7310	8300	2850	3030	1690
22	1430	1250	380	900	1320	3590	4680	8130	8090	2990	2570	1700
23	1410	1250	365	1020	1400	3790	4640	7200	7620	3390	2220	1680
24	1420	1020	455	1150	1310	3720	4820	6710	7580	3030	2230	1730
25	1460	1050	550	1200	1160	3690	4950	7370	7550	2970	2210	1800
26	1450	1300	740	1240	1300	3720	5110	6830	7500	2980	2170	1790
27	1450	1080	840	1220	1320	3620	4740	6450	7190	2900	2140	1480
28	1290	990	1070	1140	1320	3610	4360	6020	7140	2910	2050	1060
29	1060	1070	1300	1050	1310	3580	4550	5540	7110	2980	1940	863
30	1080	1010	1200	980	---	3550	4590	5300	7080	2970	1830	959
31	1150	---	1250	960	---	3540	---	5770	---	3150	1830	---
TOTAL	42530	35020	30680	34620	35470	90250	125950	216150	250680	141850	82950	52232
MEAN	1372	1167	990	1117	1223	2911	4198	6973	8356	4576	2676	1741
MAX	1460	1300	1540	1500	1420	3790	5110	10800	9530	7210	3330	2070
MIN	1060	990	365	630	970	1370	3450	4590	6730	2850	1830	863
AC-FT	84360	69460	60850	68670	70350	179000	249800	428700	497200	281400	164500	103600

CAL YR 1983 TOTAL 1040283 MEAN 2850 MAX 8590 MIN 365 AC-FT 2063000
WTR YR 1984 TOTAL 1138382 MEAN 3110 MAX 10800 MIN 365 AC-FT 2258000

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: May to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
05...	0850	1390	787	8.5	10.0	9.0	95	77	260	65
NOV										
16...	1415	1190	860	8.5	6.0	11.0	107	160	300	72
JAN										
03...	1200	1300	700	8.3	.0	10.8	88	K650	210	50
FEB										
14...	0830	1360	700	8.4	3.0	10.7	97	K640	260	63
MAR										
20...	1100	3350	600	8.3	5.0	10.3	96	390	210	54
APR										
30...	1000	4540	550	7.7	8.0	9.4	95	K330	180	49
MAY										
15...	1430	11000	308	8.4	13.0	8.0	91	390	120	33
JUN										
14...	1300	9340	490	8.4	18.0	7.8	99	K95	190	48
JUL										
18...	1050	2960	602	8.4	22.5	6.3	98	150	220	55
SEP										
17...	1315	1760	640	8.7	18.5	8.4	107	K40	250	61

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT									
05...	24	65	2	3.5	150	230	13	.50	7.2
NOV									
16...	28	77	2	2.7	150	260	15	.30	10
JAN									
03...	21	57	2	3.1	140	170	19	.20	11
FEB									
14...	24	63	2	3.6	140	220	14	.50	11
MAR									
20...	19	47	1	3.5	130	160	9.5	.60	12
APR									
30...	15	45	1	2.1	120	140	6.9	.30	12
MAY									
15...	10	22	.9	1.8	89	74	3.8	.20	11
JUN									
14...	16	33	1	2.3	120	110	9.1	.40	10
JUL									
18...	20	48	1	2.6	130	170	9.5	.20	11
SEP									
17...	24	59	2	2.9	150	210	14	.30	11

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 05...	500	.68	1870	<.10	.00	.010	.99	1.0	.000
NOV 16...	550	.75	1790	.70	.60	.060	1.0	1.1	.170
JAN 03...	420	.56	1460	.50	.50	.180	2.0	2.2	.100
FEB 14...	480	.66	1770	.60	.50	.150	.65	.80	.270
MAR 20...	380	.52	3470	.60	.50	.050	.85	.90	.350
APR 30...	340	.47	4200	.40	.40	<.010	--	.80	.060
MAY 15...	210	.28	6210	.20	.20	.040	.16	.20	.060
JUN 14...	300	.41	7580	.10	.10	.030	.67	.70	.030
JUL 18...	390	.54	3150	.20	.20	<.010	--	1.0	.080
SEP 17...	470	.64	2240	.10	.10	.050	.55	.60	.060

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN 14...	1300	<.01	<.01	<.01	<.01	<.010	.010
JUL 18...	1050	<.01	<.01	<.01	<.01	<.010	.010
SEP 17...	1315	<.01	<.01	<.01	<.01	<.010	.020

06652700 GLENDO RESERVOIR NEAR GLENDO, WY

LOCATION.--Lat 42°28'21", long 104°57'28", in SW¼NE¼ sec.24, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on right bank in gate shaft house on North Platte River, 0.5 mi southwest of Glendo Dam, and 5.0 mi southeast of Glendo.

DRAINAGE AREA.--15,545 mi², of which 1,215 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 4,543.50 ft. Datum of gage is 4,543.50 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1957. Storage began Oct. 17, 1957. Capacity, 789,400 acre-ft at elevation 4,653.00 ft, spillway crest. Dead storage, 11,030 acre-ft. Figures given herein represent total contents. Water is used for irrigation in North Platte River basin, and for development of power.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 758,800 acre-ft, May 28, 1973, elevation, 4,650.94 ft; minimum daily (since appreciable storage was attained), 15,140 acre-ft, Sept. 28, 1966, elevation, 4,548.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 596,000 acre-ft, May 23, elevation, 4,640.95 ft; minimum daily, 58,900 acre-ft, Sept. 28, elevation, 4,568.62 ft.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,568	57,100	4,590	144,000	4,620	358,000
4,570	63,100	4,600	202,000	4,630	459,000
4,580	98,800	4,610	274,000	4,641	597,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124000	213000	283000	347000	418000	424000	404000	442000	565000	538000	396000	161000
2	127000	215000	285000	350000	419000	424000	403000	445000	563000	531000	388000	151000
3	130000	218000	288000	353000	420000	423000	402000	449000	563000	525000	383000	141000
4	133000	220000	291000	356000	421000	422000	401000	453000	563000	519000	378000	131000
5	136000	223000	294000	358000	423000	421000	400000	457000	562000	513000	373000	121000
6	139000	225000	295000	361000	424000	419000	398000	461000	561000	507000	369000	114000
7	142000	227000	297000	364000	425000	417000	398000	465000	560000	502000	364000	109000
8	145000	230000	299000	367000	426000	415000	397000	469000	559000	499000	359000	106000
9	148000	233000	301000	370000	427000	414000	397000	473000	559000	499000	354000	102000
10	151000	235000	304000	373000	426000	413000	396000	478000	562000	505000	349000	99200
11	154000	237000	307000	376000	426000	412000	397000	484000	565000	515000	344000	97400
12	157000	240000	310000	378000	425000	411000	399000	493000	569000	523000	339000	95800
13	160000	242000	313000	381000	424000	411000	400000	503000	569000	522000	334000	94500
14	163000	245000	316000	384000	424000	401000	401000	516000	569000	517000	329000	91700
15	166000	247000	318000	385000	424000	410000	402000	531000	570000	512000	322000	88100
16	169000	250000	320000	386000	424000	410000	403000	547000	573000	507000	311000	84800
17	172000	252000	322000	388000	425000	412000	404000	561000	576000	502000	300000	82300
18	175000	254000	323000	390000	425000	412000	406000	573000	577000	497000	291000	81000
19	178000	256000	324000	391000	425000	412000	409000	580000	576000	490000	283000	79500
20	181000	259000	325000	392000	425000	412000	412000	581000	576000	483000	275000	77800
21	184000	262000	325000	394000	425000	412000	415000	592000	576000	478000	268000	76100
22	187000	265000	327000	396000	425000	412000	418000	595000	576000	473000	258000	74000
23	190000	267000	328000	398000	425000	411000	420000	596000	574000	470000	249000	71900
24	192000	268000	329000	400000	425000	410000	423000	595000	572000	466000	239000	69900
25	195000	271000	330000	402000	425000	410000	426000	593000	569000	461000	229000	67600
26	198000	274000	332000	405000	425000	409000	430000	591000	567000	456000	219000	62700
27	201000	276000	335000	408000	425000	409000	432000	587000	563000	451000	210000	60200
28	204000	278000	336000	410000	425000	408000	434000	583000	558000	443000	200000	58900
29	206000	280000	338000	413000	425000	407000	437000	578000	551000	431000	190000	59900
30	208000	282000	340000	415000	---	406000	439000	573000	545000	419000	180000	60400
31	211000	---	343000	417000	---	405000	---	569000	---	408000	170000	---
MAX	211000	282000	343000	417000	427000	424000	439000	596000	577000	538000	396000	161000
MIN	124000	213000	283000	347000	418000	401000	396000	442000	545000	408000	170000	58900
(†)	4,601.27	4,611.00	4,618.25	4,626.00	4,626.85	4,624.82	4,628.15	4,638.95	4,637.17	4,625.12	4,594.82	4,569.10
(‡)	+90,000	+71,000	+61,000	+74,000	+8,000	-20,000	+34,000	+130,000	-24,000	-137,000	-238,000	-109,600

CAL YR 1983 MAX 741000 MIN 110000 (‡) +77,000
WTR YR 1984 MAX 596000 MIN 58900 (‡) -60,600
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY

LOCATION.--Lat 42°27'25", long 104°56'50", in SW¼SW¼NW¼ sec.30, T.29 N., R.67 W., Platte County, Hydrologic Unit 10180008, on right bank opposite Sand Draw, 1.3 mi upstream from Horseshoe Creek, 3.1 mi downstream from Glendo Dam, and 5.2 mi southeast of Glendo.

DRAINAGE AREA.--15,548 mi², of which 1,215 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,488.94 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records good except those below 10 ft³/s, which are poor. Flow completely regulated by Glendo Reservoir since Oct. 17, 1957. (See sta 06652700.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Twenty-six discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft³/s, June 29, 1984, gage height, 11.16 ft; minimum daily, 0.41 ft³/s (0.012 m³/s) Oct. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft³/s, June 29, gage height, 11.16 ft; minimum daily, 1.3 ft³/s, Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	1.7	8.4	3.8	305	1790	4110	3240	7920	10200	8970	6760
2	7.6	1.7	9.1	3.7	485	1820	4110	3200	7920	10100	7250	6800
3	7.6	1.9	9.0	3.8	494	1820	4080	3250	7920	10000	5720	6800
4	7.2	1.7	9.3	3.8	495	1820	4080	3280	8230	9780	5620	6750
5	7.1	1.5	9.0	4.1	499	1820	4070	3260	8560	9760	5480	6500
6	7.2	1.4	8.6	4.3	504	2410	4080	3250	8400	9550	5390	5430
7	7.2	1.3	8.8	3.9	502	2850	4080	3220	8490	8980	5360	4090
8	7.3	1.8	9.1	3.7	501	2850	4080	3230	8680	7760	5320	3680
9	7.2	1.8	9.5	3.7	1070	2850	4080	3240	8490	6600	5400	3760
10	7.8	2.6	9.9	3.7	1520	2850	4070	3240	7440	3410	5200	3270
11	8.3	8.0	10	3.8	1520	2850	3770	3240	6890	996	5070	2840
12	7.6	7.9	10	3.9	1520	2840	3560	3210	7200	970	5050	2800
13	7.4	8.0	10	2.8	1520	2840	3560	3230	8720	4570	5050	2670
14	7.7	8.1	9.6	3.8	1520	2860	3570	3220	8650	6350	5040	3430
15	7.7	7.9	9.8	4.0	1370	2860	3550	2960	8250	6400	6160	3860
16	7.7	8.0	9.6	3.7	1180	2870	3550	2500	7420	6140	7930	3610
17	7.7	8.0	9.4	3.5	1180	2870	3370	2310	7220	5740	8200	3000
18	7.7	8.2	9.3	3.1	1190	3290	3200	3260	7970	5440	7460	2500
19	7.6	8.1	9.1	3.0	1190	3520	3250	3790	8480	6040	7060	2500
20	7.7	8.2	9.0	3.4	1190	3520	3230	3830	8100	6080	6870	2480
21	7.4	8.2	8.8	3.2	1130	3770	3220	4800	8210	5790	6820	2630
22	7.4	8.0	8.9	4.2	1190	4040	3230	5950	7880	5380	7160	2720
23	7.5	7.7	6.6	5.0	1190	4050	3230	6870	8050	5040	7180	2720
24	7.4	7.6	4.1	4.5	1190	4050	3250	7650	8280	5300	7130	2720
25	7.5	8.0	4.0	4.2	1190	4050	3310	7940	8270	5470	7090	3120
26	7.6	8.8	3.8	4.3	1190	4040	3340	8080	8340	5310	7000	4030
27	7.6	9.2	3.6	3.8	1180	4020	3280	8170	8720	5330	6890	2880
28	7.4	9.4	3.5	3.7	1180	4020	3290	8170	9300	6510	6870	1740
29	7.6	9.0	3.5	3.6	1360	4060	3260	7980	9950	8890	6870	573
30	7.6	8.3	3.6	3.5	---	4110	3280	7850	10300	9050	6860	783
31	11	---	3.8	10	---	4110	---	7920	---	9020	6810	---
TOTAL	237.9	182.0	240.7	123.5	30555	97520	108140	145340	248250	205956	200280	107446
MEAN	7.67	6.07	7.76	3.98	1054	3146	3605	4688	8275	6644	6461	3582
MAX	11	9.4	10	10	1520	4110	4110	8170	10300	10200	8970	6800
MIN	7.1	1.3	3.5	2.8	305	1790	3200	2310	6890	970	5040	573
AC-FT	472	361	477	245	60610	193400	214500	288300	492400	408500	397300	213100

CAL YR 1983 TOTAL 987351.7 MEAN 2705 MAX 10100 MIN 1.2 AC-FT 1958000
WTR YR 1984 TOTAL 1144271.1 MEAN 3126 MAX 10300 MIN 1.3 AC-FT 2270000

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 05...	1130	7.0	648	14.0	240	58	23	51	1	3.6
NOV 16...	1030	7.6	715	5.5	260	64	24	59	2	3.0
JAN 03...	1515	3.8	884	.5	340	74	38	76	2	4.8
FEB 14...	1400	1500	793	4.0	280	69	25	64	2	3.8
MAR 20...	1500	3510	727	4.0	260	67	23	59	2	3.9
MAY 02...	1300	3120	621	8.0	220	57	20	51	2	2.6
JUN 14...	1300	9140	482	14.0	170	45	14	35	1	2.1
JUL 16...	1400	6240	509	18.0	190	49	17	36	1	2.8
AUG 17...	1145	8210	546	22.0	220	57	18	37	1	3.1
SEP 17...	1810	2490	656	17.0	240	61	22	53	2	2.9

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 05...	150	170	11	.30	6.3	410	.56	7.8	.100	.030
NOV 16...	160	210	13	.30	2.9	470	.64	9.7	.000	.000
JAN 03...	220	250	18	.20	7.8	600	.82	6.2	.100	.000
FEB 14...	170	220	15	.50	9.0	510	.69	2060	.300	.140
MAR 20...	160	210	14	.60	6.2	480	.65	4550	.300	.000
MAY 02...	140	180	11	.30	9.0	410	.56	3490	.200	.040
JUN 14...	120	110	7.1	.30	8.8	290	.40	7260	.300	.010
JUL 16...	120	120	7.7	.20	11	320	.43	5320	.200	.030
AUG 17...	150	150	9.9	.40	11	380	.51	8340	.100	.030
SEP 17...	150	200	13	.20	11	450	.62	3050	.200	.060

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUN 14...	1300	<.01	<.01	<.01	<.01	.010	.010
JUL 16...	1400	<.01	<.01	<.01	<.01	<.010	<.010
AUG 17...	1145	<.01	<.01	<.01	<.01	.010	.010
SEP 17...	1810	<.01	<.01	<.01	<.01	<.010	.010

06655500 GUERNSEY RESERVOIR NEAR GUERNSEY, WY

LOCATION.--Lat 42°17'23", long 104°45'48", in NE¼NW¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on gate structure at right end of dam on North Platte River and 1.2 mi northwest of Guernsey.

DRAINAGE AREA.--16,224 mi², of which 1,216 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.00 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation); gage readings have been reduced to elevations of National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1966, nonrecording gages at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in July 1927. Capacity, 45,600 acre-ft, revised, at elevation 4,420 ft, top of spillway gate. Dead storage is negligible. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in eastern Wyoming and western Nebraska and for development of power.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 73,240 acre-ft, Oct. 17, 1929, elevation, 4,420.95 ft; no storage Oct. 11, 1982, Oct. 6, 7, Oct. 10 to Dec. 4, 1983; minimum daily elevation, 4,361.50 ft, Oct. 5, 6, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 38,500 acre-ft, May 16, elevation, 4,416.91 ft; no storage Oct. 6, 7, Oct. 10 to Dec. 4.

Capacity table (elevation, in feet,
and contents, in acre-feet)

4,370	0	4,382	639	4,405	16,000
4,372	8	4,385	1,200	4,410	24,300
4,374	32	4,390	2,710	4,415	34,300
4,376	79	4,395	5,360	4,420	45,600
4,380	375	4,400	9,690		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	531	0	0	2180	1650	27200	26700	30500	36400	33200	31600	30900
2	40	0	0	2250	2130	27600	27000	30800	35400	33100	35900	30600
3	2	0	0	2320	3250	26800	27300	31000	34200	33600	36000	30600
4	1	0	0	2370	4460	25700	27600	31200	32900	33400	36200	30500
5	1	0	112	2310	5520	24000	27800	31600	32400	33100	36400	30600
6	0	0	133	2230	6710	22500	27900	31900	32500	32800	36500	31100
7	0	0	220	2280	8010	22600	28100	32000	33600	33200	36400	30700
8	1	0	323	2320	9100	22700	28200	32100	35300	34700	36100	29200
9	1	0	424	2340	10400	22800	28400	32100	37400	35600	35800	27400
10	0	0	527	2340	12800	22900	28600	32100	38300	32200	35100	25600
11	0	0	633	2350	14800	23100	29100	32300	38100	21300	34000	23200
12	0	0	732	2230	16700	23200	29300	32700	33900	10300	32700	21100
13	0	0	849	2020	18600	23300	29600	33100	34100	4220	31200	19200
14	0	0	956	1800	20500	23500	29800	33700	34900	2070	29700	18400
15	0	0	1050	1560	22300	23600	29900	34500	36000	2410	28200	19200
16	0	0	1130	1330	23500	23800	30200	38500	35900	2570	29100	19800
17	0	0	1210	1120	24800	24000	30200	36700	35500	2400	30700	19800
18	0	0	1270	1020	26100	25100	29600	35500	34200	1590	31800	18200
19	0	0	1350	1050	27300	27100	29300	35400	34400	2040	32000	16600
20	0	0	1420	1070	28100	25100	29500	35700	34400	2730	32300	14900
21	0	0	1500	1090	28000	25300	29200	34800	34000	2800	31800	13000
22	0	0	1560	1110	27700	25500	29000	34800	33700	2720	31600	10200
23	0	0	1610	1140	27500	25500	28900	34600	33500	2010	31900	7370
24	0	0	1650	1160	27300	25400	29000	34500	33500	1310	32200	4460
25	0	0	1670	1200	27100	25400	29800	35600	33100	1520	32400	935
26	0	0	1670	1240	26800	25400	30400	36400	32600	1390	32700	3680
27	0	0	1680	1300	26700	25500	30400	37300	32200	1270	32800	4070
28	0	0	1680	1380	26500	25400	30300	37900	32300	2030	32700	4960
29	0	0	1820	1450	26300	25500	30500	38100	32400	10600	32200	4460
30	0	0	2060	1520	---	25900	30600	37800	32900	18200	31700	3320
31	0	---	2110	1540	---	26200	---	37200	---	25300	31300	---
MAX	531	.00	2110	2370	28100	27600	30600	38500	38300	35600	36500	31100
MIN	.00	.00	.00	1020	1650	22500	26700	30500	32200	1270	28200	935
(†)	4,370.02	4,370.01	4,388.32	4,386.59	4,411.06	4,411.01	4,413.20	4,416.33	4,414.33	4,410.50	4,413.58	4,391.43
(‡)	-1,670	0	+2,110	-570	+24,760	-100	+4,400	+6,600	-4,300	-7,600	+6,000	-27,980

CAL YR 1983 MAX 39200 MIN .00 (‡) -3,060
WTR YR 1984 MAX 38500 MIN .00 (‡) +1,650
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY

LOCATION.--Lat 42°16'50", long 104°45'15", in SE¼SE¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on right bank 1.0 mi northwest of Guernsey and 1.1 mi downstream from Guernsey Dam.

DRAINAGE AREA.--16,237 mi^2, of which 1,216 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1900 to current year (no winter records prior to 1903). Monthly discharge only for some periods, published in WSP 1310. Published as "near Guernsey" 1900-1901, 1904; as "at Guernsey" 1902-3, 1905-8, March to October 1912; as "at Whalen" 1909; as North Platte River and Interstate Canal at Whalen 1910-11, 1913-16; and as "above Whalen" 1917-27.

REVISED RECORDS.--WSP 1310: 1903-4, 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,340 ft, from topographic map. Prior to Nov. 17, 1908, and Mar. 30 to Oct. 31, 1912, nonrecording gages downstream at several sites within 0.8 mi at different datums. May 1, 1909, to Dec. 31, 1927, nonrecording gages at different datums on river and diversion canals at Whalen Dam about 9.0 mi downstream. Jan. 1, 1928, to Sept. 30, 1964, water-stage recorder at present site and datum 1.50 ft higher.

REMARKS.--Records good except those for December and January, which are poor. Flow completely regulated by Guernsey Reservoir since 1927. (See sta 06655500.) Small diversions for irrigation between this station and diversion dam at Whalen. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-five discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s, June 2 or 3, 1908, gage height, 11.5 ft, from floodmark, site and datum then in use, from rating curve extended above 13,000 ft^3/s; no flow Feb. 28, 1927, Nov. 19 to Dec. 8, Dec. 10-12, 14, 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,500 ft^3/s, July 3, gage height, 8.51 ft; minimum daily, 2.1 ft^3/s, December 15-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	707	47	50	2.6	16	1240	3990	3600	8480	10200	5820	6960
2	371	48	60	2.4	16	1610	4000	3480	8610	10200	5770	6930
3	106	45	54	2.6	16	2200	4000	3600	8790	10000	5630	6980
4	91	40	56	14	16	2340	4010	3600	8780	9910	5510	6880
5	82	41	45	59	15	2710	4050	3610	8630	9920	5360	6670
6	76	40	30	69	15	2830	4070	3610	8350	9770	5360	5640
7	71	39	24	22	14	2840	4080	3610	7960	9010	5420	4450
8	66	44	36	22	10	2850	4090	3610	7850	7540	5440	4450
9	66	45	38	27	13	2850	4080	3580	7720	6510	5540	4550
10	71	41	31	36	390	2850	4090	3630	7760	6200	5600	4480
11	68	39	30	38	556	2850	3820	3630	7780	6370	5610	4120
12	62	38	21	79	517	2860	3570	3660	8250	6380	5760	3930
13	59	39	3.6	116	531	2880	3550	3670	8650	6420	5820	3730
14	57	40	2.6	120	519	2880	3560	3490	8430	6380	5860	3490
15	58	39	2.1	110	525	2880	3560	3130	8100	6430	6500	3460
16	57	39	2.1	100	533	2880	3560	2960	7640	6200	7480	3450
17	55	39	2.1	70	491	2880	3600	3820	7630	6050	7440	3320
18	55	45	2.1	40	491	2880	3670	4210	8280	5570	7160	3260
19	52	47	2.1	20	501	3330	3660	4270	8590	5670	7020	3260
20	52	47	2.1	20	766	3630	3660	4380	8210	5730	6860	3300
21	51	53	2.1	20	1140	3630	3650	5180	8340	5830	6940	3550
22	50	55	2.2	20	1280	3950	3640	6070	8220	5610	7160	4030
23	49	48	2.2	19	1280	4100	3640	7090	8020	5520	7020	4050
24	46	46	2.3	18	1270	4100	3630	7630	8270	5350	6990	4020
25	48	57	2.4	19	1260	4110	3620	7660	8530	5380	6990	3790
26	49	30	2.5	17	1270	4080	3630	7870	8580	5380	6870	3490
27	49	27	2.4	16	1270	4070	3630	7960	8810	5270	6840	2950
28	48	47	2.6	16	1270	4080	3630	8010	9160	5270	6950	2030
29	48	53	2.5	16	1250	4020	3590	8160	9740	5240	7050	1090
30	47	47	2.4	16	---	3970	3600	8260	10100	5320	7080	1100
31	48	---	2.6	16	---	3980	---	8490	---	5450	6980	---
TOTAL	2815	1305	520.0	1162.6	17241	98360	112930	155530	252260	210080	197830	123410
MEAN	90.8	43.5	16.8	37.5	595	3173	3764	5017	8409	6777	6382	4114
MAX	707	57	60	120	1280	4110	4090	8490	10100	10200	7480	6980
MIN	46	27	2.1	2.4	10	1240	3550	2960	7630	5240	5360	1090
AC-FT	5580	2590	1030	2310	34200	195100	224000	308500	500400	416700	392400	244800

CAL YR 1983 TOTAL 1045227.8 MEAN 2864 MAX 10200 MIN 2.1 AC-FT 2073000
WTR YR 1984 TOTAL 1173443.6 MEAN 3206 MAX 10200 MIN 2.1 AC-FT 2328000

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1951 to September 1958, October 1965 to September 1968, May to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: April 1947 to June 1953, May to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
05...	1630	81	680	14.5	280	71	24	48	1	4.7
JAN										
05...	1045	17	804	.0	330	90	25	57	1	5.5
FEB										
14...	1700	506	758	2.0	290	73	25	60	2	4.4
MAR										
21...	0900	3640	728	4.5	260	66	23	59	2	3.9

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
05...	200	150	11	.40	15	440	.60	97	1.30	.050
JAN										
05...	220	190	12	.40	19	530	.72	24	.600	.020
FEB										
14...	170	210	14	.50	9.8	500	.68	681	.400	.100
MAR										
21...	160	210	14	.60	5.4	480	.65	4700	.200	.000

06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY

LOCATION.--Lat 42°14'20", long 104°36'29", in NE¼SW¼ sec.12, T.26 N., R.65 W., Goshen County, Hydrologic Unit 10180009, on left bank 0.2 mi downstream from Cottonwood Draw, 2.5 mi downstream from Whalen diversion dam, and 4.8 mi northwest of Fort Laramie.

DRAINAGE AREA.--16,425 mi², of which 1,219 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1909 to current year. Prior to Apr. 16, 1938, published as "below Whalen", and Apr. 16, 1938, to Sept. 30, 1974, as "at recorder station, below Whalen".

REVISED RECORDS.--WSP 1310: 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,250 ft, from topographic map. Prior to Apr. 16, 1938, nonrecording gages at Whalen diversion dam and canals 2.5 mi upstream at different datums. Apr. 16, 1938, to Nov. 17, 1955, water-stage recorder at site 200 ft downstream, and Nov. 18, 1955, to Feb. 16, 1972, at present site at datum 1.00 ft higher.

REMARKS.--Records good except those for December and January, which are poor. Flow regulated by Whalen diversion dam 2.5 mi upstream. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Nineteen discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 22,000 ft³/s, June 26, 1955, gage height, 9.85 ft, from rating curve extended above 4,500 ft³/s on basis of studies of peak flow measurements of upstream floods; no flow at times in 1910, 1916, 1925-27, 1962-64, 1967, 1970-71, 1975-77, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,050 ft³/s, June 19, gage height, 6.50 ft; minimum daily, 2.4 ft³/s, Dec. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	54	58	3.5	22	1250	4100	2620	6150	6650	2250	3290
2	404	53	71	3.7	19	1400	4100	2490	6250	6600	2240	3200
3	336	53	63	3.7	20	1880	4100	2640	6370	6570	2050	3120
4	191	49	65	3.7	19	2150	4100	2690	6300	6370	1970	3160
5	150	48	51	5.0	19	2470	4150	2710	6220	6390	1850	3120
6	143	48	28	47	19	2690	4190	2710	6100	6340	1770	2320
7	128	46	30	34	18	2710	4170	2710	5920	5650	1830	1110
8	117	49	27	24	18	2730	4190	2730	5970	4120	1830	1070
9	109	53	37	23	14	2730	4190	2710	5850	2990	1880	1220
10	109	53	36	26	140	2750	4190	2830	5900	2560	1950	1260
11	102	49	34	35	549	2730	3610	3200	5900	2750	1920	948
12	97	48	32	35	657	2730	2930	3700	6200	2770	2050	821
13	92	48	23	75	564	2730	2650	3770	6750	2790	2130	732
14	85	46	14	114	549	2730	2640	3610	6550	2790	2100	579
15	85	46	10	120	535	2730	2640	3270	6320	2790	2500	557
16	79	46	9.3	117	542	2730	2640	2870	5750	2790	3650	564
17	77	45	6.3	110	514	2730	2600	3010	5720	2640	3650	535
18	72	45	5.3	100	514	2730	2620	3630	6250	2050	3470	602
19	71	45	4.7	56	521	3170	2640	3750	6820	2100	3310	609
20	69	45	4.1	33	688	3470	2670	3870	6370	2180	3180	602
21	67	54	3.6	29	1030	3680	2620	4220	6370	2430	3180	721
22	65	56	3.1	25	1250	3940	2620	4770	6170	2080	3490	1260
23	65	45	2.8	25	1260	4220	2620	5620	5720	2040	3330	1270
24	61	42	2.4	25	1260	4240	2600	6070	5870	1860	3290	1330
25	59	59	2.4	28	1260	4240	2620	6070	6150	1820	3310	1400
26	58	58	2.6	32	1260	4220	2620	6250	6070	1850	3200	1360
27	56	26	2.5	29	1260	4190	2620	6320	6020	1760	3120	1360
28	56	48	2.9	27	1260	4190	2650	6390	6020	1740	3230	1160
29	54	61	2.6	27	1260	4150	2620	6390	6270	1730	3310	345
30	54	53	2.5	23	---	4070	2620	6220	6520	1820	3420	276
31	54	---	2.9	23	---	4100	---	6220	---	2110	3310	---
TOTAL	3427	1471	639.0	1261.6	17041	96480	95330	126060	184840	101130	83770	39901
MEAN	111	49.0	20.6	40.7	588	3112	3178	4066	6161	3262	2702	1330
MAX	404	61	71	120	1260	4240	4190	6390	6820	6650	3650	3290
MIN	54	26	2.4	3.5	14	1250	2600	2490	5720	1730	1770	276
AC-FT	6800	2920	1270	2500	33800	191400	189100	250000	366600	200600	166200	79140

CAL YR 1983 TOTAL 675519.5 MEAN 1851 MAX 6850 MIN 2.4 AC-FT 1340000
WTR YR 1984 TOTAL 751350.6 MEAN 2053 MAX 6820 MIN 2.4 AC-FT 1490000

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY

LOCATION.--River: Lat 41°08'17", long 105°58'49", in NW¼SE¼ sec.36, T.14 N., R.77 W., Albany County, Hydrologic Unit 10180010, on left bank 100 ft upstream from diversion dam for Pioneer Canal, 2.2 mi downstream from Fox Creek, 2.5 mi northeast of Woods, and 23 mi southwest of Laramie.

Canal: Lat 41°08'21", long 105°58'45", in SE¼NE¼ sec.36, T.14 N., R.77 W., Albany County, on left bank 400 ft downstream from headgate.

DRAINAGE AREA.--434 mi^2. Drainage area at mouth, 4,565 mi^2.

PERIOD OF RECORD.--April 1912 to September 1924, October 1926 to September 1927, October 1931 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1918-20, 1922, 1924. WSP 1710: Drainage area.

GAGE.--River: Water-stage recorder and concrete control. Datum of gage is 7,388.99 ft, National Geodetic Vertical Datum of 1929. Apr. 16 to Nov. 15, 1912, nonrecording gage and Nov. 16, 1912, to Sept. 22, 1915, water-stage recorder 90 ft downstream between dam crest and canal headgates at datum 1.00 ft higher. Sept. 23, 1915, to Sept. 30, 1924, Apr. 19 to Sept. 30, 1927, and Apr. 11, 1932, to Sept. 30, 1935, water-stage recorder at site 50 ft downstream at datum 1.00 ft higher. Oct. 1, 1935, to July 13, 1950, water-stage recorder at site 50 ft downstream at present datum.

Canal: Water-stage recorder and Parshall flume. Altitude of gage is 7,390 ft, from topographic map. Apr. 16, 1912, to Apr. 10, 1923, nonrecording gage; Apr. 11, 1923, to Sept. 30, 1924, and Apr. 19 to June 9, 1927, water-stage recorder; June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938, nonrecording gage; May 9, 1938, to Apr. 26, 1966, water-stage recorder at site 1.5 mi downstream at different datums. Apr. 27, 1966, to May 8, 1967, at present site, at datum 0.06 ft lower.

REMARKS.--Records good. Pioneer Canal diverts from left bank of river at diversion dam 100 ft downstream for irrigation in vicinity of Laramie. Records show combined flow of river and canal. Three small reservoirs above station in Wyoming, total capacity, about 600 acre-ft for irrigation, stock water, and domestic use. Diversions for irrigation of about 5,200 acres above station. Transbasin diversions above station to Cache la Poudre River and tributaries.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD (combined flow river and canal).--Maximum discharge, 5,060 ft^3/s, June 10, 1923 (river discharge by computation of peak flow over dam); minimum daily (1950-72), 10 ft^3/s, Aug. 30, Sept. 2-5, 1954.

EXTREMES FOR CURRENT YEAR (combined flow river and canal).--Maximum discharge, 2,710 ft^3/s, May 25; minimum daily during period of operation, 65 ft^3/s, Apr. 1.

REVISIONS.--Revised daily and monthly discharges, in cubic feet per second, for April 1983, are given below. These figures supersede those published in the report for 1983.

Apr. 1, 1983...	60	Apr. 5, 1983...	40	Apr. 9, 1983...	47	Apr. 13, 1983...	53
2.........	57	6.........	35	10.........	51	14.........	46
3.........	59	7.........	38	11.........	53	15.........	46
4.........	53	8.........	43	12.........	57	16.........	48

Month	Total	Mean	Max	Min	Ac-Ft
April 1983	3070	102	266	35	6090

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							65	135	1910	1000	303	90
2							71	139	1960	773	277	143
3							71	155	1660	651	210	101
4							74	147	1640	565	182	83
5							75	163	1480	487	173	75
6							77	167	1430	429	181	68
7							111	155	1510	390	214	69
8							126	151	1260	360	189	96
9							138	186	1140	452	151	125
10							122	284	992	789	141	114
11							122	445	967	702	132	106
12							115	594	990	490	128	113
13							113	802	985	403	165	135
14							119	1030	1120	411	131	139
15							126	1260	1270	334	129	128
16							143	1490	1310	272	153	117
17							167	1490	1350	246	193	149
18							206	1560	1290	230	161	141
19							185	1370	1190	204	131	118
20							177	1580	1160	195	124	107
21							141	1890	1110	202	213	109
22							123	2000	1120	201	175	125
23							130	1930	1090	248	171	132
24							168	2220	1060	557	142	114
25							204	2550	1020	435	127	115
26							179	2300	990	288	124	144
27							131	1970	866	235	104	141
28							135	1800	801	283	91	145
29							135	1640	757	473	81	134
30							135	1670	785	340	77	120
31							---	1780	---	313	70	---
TOTAL							3884	35053	36213	12958	4843	3496
MEAN							129	1131	1207	418	156	117
MAX							206	2550	1960	1000	303	149
MIN							65	135	757	195	70	68
AC-FT							7700	69530	71830	25700	9610	6930

06659580 SAND CREEK AT COLORADO-WYOMING STATE LINE

LOCATION.--Lat 40°59'37", long 105°45'35", in NW¼NW¼SW¼ sec.24, T.12 N., R.75 W., Larimer County, CO, Hydrologic Unit 10180010, on right bank 1,200 ft south of Colorado-Wyoming State line and 17 mi southwest of Tie Siding, WY.

DRAINAGE AREA.--29.2 mi^2.

PERIOD OF RECORD.--October 1968 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Altitude of gage is 7,580 ft, from topographic map. Prior to July 19, 1977, gage at site 700 ft upstream at different datum.

REMARKS.--Records good. Natural flow affected by diversion above station to Cache la Poudre River basin through Wilson Supply ditch. Water imported above station from Deadman Creek in Laramie River basin is rediverted through Wilson Supply ditch but is wasted down Sand Creek at times. Diversions for irrigation of about 170 acres above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,710 ft^3/s, July 19, 1977, from slope-area measurement of peak flow, gage height, 6.65 ft, from floodmarks, present site and datum; minimum daily during period of operation, 0.13 ft^3/s, July 26-28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 286 ft^3/s, May 25, gage height, 2.32 ft; minimum daily during period of operation, 2.2 ft^3/s, Sept. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							4.9	6.1	196	28	20	3.4
2							4.6	7.1	160	22	18	5.6
3							4.6	8.1	146	16	10	5.3
4							4.6	8.6	146	14	8.1	3.9
5							5.1	10	123	13	6.8	3.0
6							6.1	9.1	114	9.4	6.3	2.5
7							6.3	8.6	101	9.1	7.8	2.7
8							6.6	8.8	77	7.1	8.1	3.0
9							6.8	17	72	6.3	6.1	4.1
10							5.8	30	62	11	5.6	3.2
11							5.6	43	72	16	5.3	2.7
12							5.1	62	75	7.8	4.6	2.5
13							4.4	79	66	6.1	4.4	2.5
14							4.9	114	82	5.6	5.1	3.2
15							4.6	146	64	6.8	5.8	3.4
16							6.6	146	41	7.6	7.1	3.4
17							9.1	151	35	7.1	9.1	3.0
18							12	146	30	6.6	8.6	2.8
19							12	132	27	6.6	6.3	2.7
20							10	139	25	7.3	5.8	2.5
21							7.3	114	31	7.6	9.1	2.3
22							6.8	96	30	6.6	9.1	2.2
23							7.8	88	28	7.3	8.3	2.2
24							9.1	203	22	49	8.1	2.5
25							9.1	230	20	32	7.6	3.7
26							7.8	163	21	18	7.6	4.4
27							6.3	158	18	12	5.8	5.3
28							6.6	139	17	9.1	4.4	5.6
29							6.6	137	14	8.6	3.4	5.1
30							6.3	160	13	13	2.8	4.6
31							---	187	---	18	2.5	---
TOTAL							203.4	2946.4	1928	394.6	227.6	103.3
MEAN							6.78	95.0	64.3	12.7	7.34	3.44
MAX							12	230	196	49	20	5.6
MIN							4.4	6.1	13	5.6	2.5	2.2
AC-FT							403	5840	3820	783	451	205

06660070 LARAMIE RIVER ABOVE HOWELL, WY

LOCATION.--Lat 41°22'05", long 105°35'40", in NW¼SW¼SW¼ sec.9, T.16 N., R.73 W., Albany County, Hydrologic Unit 10180010, at bridge on unimproved dirt road, 1.9 mi downstream from Laramie sewage disposal plant, 2.8 mi north of Laramie, and 4.7 mi south of Howell.

PERIOD OF RECORD.--November 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 25...	1130	69	925	8.1	4.0	--	--	K67	--	--
DEC 12...	1130	E60	650	7.3	.0	12.1	109	56	--	--
JAN 27...	1400	55	650	7.5	.0	9.6	86	200	260	59
MAR 09...	1030	78	720	7.4	.0	10.4	93	640	280	64
APR 11...	1200	420	1160	8.0	4.0	10.4	105	K2	--	--
MAY 04...	1500	180	1090	8.2	8.0	10.8	121	K25	--	--
JUN 27...	0930	2000	415	8.0	15.0	6.8	88	51	170	43
JUL 17...	1000	115	640	8.1	18.0	7.1	98	340	--	--
AUG 09...	0930	140	545	8.1	19.0	6.4	90	88	--	--
SEP 19...	0830	100	515	7.7	14.0	--	--	190	230	54

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 25...	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--
JAN 27...	27	36	1	3.0	130	170	18	.30	12
MAR 09...	28	36	1	3.9	130	190	17	.70	10
APR 11...	--	--	--	--	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	--	--	--
JUN 27...	16	24	.8	1.9	94	110	5.4	.10	9.7
JUL 17...	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--
SEP 19...	24	30	.9	2.3	110	170	14	.20	11

06660070 LARAMIE RIVER ABOVE HOWELL, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	--	--	--	.20	--	.910	.89	1.8	.250
DEC 12...	--	--	--	.20	--	.800	.60	1.4	.220
JAN 27...	400	.55	60	.20	.20	1.60	.40	2.0	.430
MAR 09...	430	.58	90	<.10	.20	1.30	.60	1.9	.280
APR 11...	--	--	--	<.10	--	.100	.50	.60	.060
MAY 04...	--	--	--	.10	--	.160	.54	.70	.060
JUN 27...	270	.36	1440	<.10	.50	.060	.74	.80	.050
JUL 17...	--	--	--	<.10	--	.170	.83	1.0	.070
AUG 09...	--	--	--	<.10	--	.080	.72	.80	.120
SEP 19...	370	.51	100	.30	.30	.120	.48	.60	1.20

06660500 LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼NE¼SW¼ sec.5, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.6 mi upstream from Little Laramie River, and 14 mi northwest of Laramie.

DRAINAGE AREA.--1,224 mi², of which 188 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1966 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
27...	1200	2000	--	<.01	<.01	<.01	<.01	<.010	<.010
AUG									
09...	1130	140	21.0	.02	<.01	<.01	<.01	<.010	.010
SEP									
19...	1100	100	15.0	.06	<.01	<.01	<.01	<.010	<.010

06661000 LITTLE LARAMIE RIVER NEAR FILMORE, WY

LOCATION.--Lat 41°17'42", long 106°02'03", in SE¼NE¼SE¼ sec.4, T.15 N., R.77 W., Albany County, Hydrologic Unit 10180010, on right bank 40 ft downstream from State Highway 130, 1.2 mi west of Filmore, and 4.4 mi downstream from North Fork.

DRAINAGE AREA.--157 mi². Area at site used prior to Sept. 8, 1976, 156 mi².

PERIOD OF RECORD.--July 1902 to September 1903 (published as "near Hatton"), May 1911 to November 1926, October 1932 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1903, 1914, 1922-26. WSP 1440: 1902. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,610 ft, from topographic map. Prior to Sept. 16, 1938, nonrecording gages, and Sept. 16, 1938 to Sept. 7, 1976, water-stage recorder, at sites 0.7 mi upstream at different datums.

REMARKS.--Records good. Ten small reservoirs above station, combined capacity, about 160 acre-ft, for irrigation, stock water, recreation, and domestic use. Diversions above station for irrigation of about 11,020 acres, of which about 20 acres are below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years (water years 1903, 1912-26, 1933-71), 103 ft³/s, 74,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,450 ft³/s, June 10, 1965, gage height, 5.33 ft, site and datum then in use; minimum daily determined, 1.0 ft³/s, Sept. 17-20, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s, May 25, gage height, 3.84 ft; minimum daily during period of operation, 33 ft³/s, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							33	103	916	599	306	67
2							34	125	808	418	219	63
3							38	117	790	372	177	56
4							41	109	784	330	159	52
5							55	107	730	294	157	48
6							60	91	659	272	202	44
7							72	79	614	252	177	65
8							85	81	470	244	147	67
9							93	97	407	320	135	56
10							87	123	369	379	129	45
11							78	161	376	262	119	45
12							65	179	400	219	117	65
13							55	209	450	202	129	74
14							55	239	614	224	115	89
15							68	294	778	194	145	72
16							87	397	766	171	133	63
17							121	411	718	159	119	58
18							125	434	700	151	111	56
19							105	414	674	141	105	52
20							79	486	639	147	103	53
21							53	619	609	173	109	55
22							63	624	624	179	105	74
23							105	629	584	192	115	60
24							153	820	544	323	97	56
25							157	958	524	244	89	72
26							111	718	490	194	83	67
27							63	639	474	323	72	61
28							63	614	446	326	67	61
29							68	634	422	312	61	60
30							72	754	450	282	56	60
31							---	856	---	344	56	---
TOTAL							2344	12121	17829	8242	3914	1816
MEAN							78.1	391	594	266	126	60.5
MAX							157	958	916	599	306	89
MIN							33	79	369	141	56	44
AC-FT							4650	24040	35360	16350	7760	3600

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'07", long 105°43'56", in SE¼SE¼SE¼ sec.6, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.5 mi upstream from mouth, and 14 mi northwest of Laramie.

DRAINAGE AREA.--376 mi^2, of which 58 mi^2 is probably noncontributing.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 25...	1635	27	660	7.0	230	61	19	56	2	2.0
JAN 27...	1100	5.5	844	.0	270	68	24	74	2	3.2
JUN 27...	1130	290	371	15.0	160	38	15	23	.8	.90
SEP 19...	1000	27	398	14.0	170	43	15	27	.9	1.2

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 25...	140	150	35	.30	6.4	410	.56	30	.800	.000
JAN 27...	160	200	49	.40	12	530	.72	7.8	.000	.000
JUN 27...	140	54	5.4	.20	7.9	230	.31	179	.000	.000
SEP 19...	120	75	13	.30	3.5	250	.34	18	.000	.000

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN 27...	1130	<.01	<.01	<.01	<.01	<.010	<.010
AUG 09...	1100	<.01	<.01	<.01	<.01	<.010	<.010
SEP 19...	1000	<.01	<.01	<.01	<.01	<.010	<.010

06661585 LARAMIE RIVER NEAR BOSLER, WY

LOCATION.--Lat 41°33'17", long 105°40'58", in NW¼NW¼NE¼ sec.10, T.18 N., R.74 W., Albany County, Hydrologic Unit 10180010, on left bank 50 ft upstream from bridge on U.S. Highways 30 and 287, 0.2 mi northwest of Bosler Junction, 1.7 mi south of Bosler, and 2.0 mi downstream from Soil Bank Boughton Canal diversion dam.

DRAINAGE AREA.--1,790 mi^2, of which 283 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,030 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion above station for irrigation of about 54,700 acres, of which about 2,300 acres are below station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years, 196 ft^3/s, 142,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,460 ft^3/s, June 28, 1983, gage height, 7.43 ft; maximum gage height, 8.40 ft, Apr. 22, 1973 (backwater from ice jam); minimum daily discharge, 0.20 ft^3/s, Sept. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,710 ft^3/s, May 28, gage height, 6.34 ft; minimum daily, 36 ft^3/s, Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	91	132	68	60	72	223	522	1920	755	783	192
2	38	91	128	67	60	71	220	546	1900	762	758	156
3	36	94	120	67	59	78	230	576	2040	776	814	142
4	38	97	113	70	58	88	240	564	2200	790	766	136
5	41	102	110	73	60	92	240	570	2260	702	606	139
6	46	102	108	75	65	90	330	516	2200	598	508	114
7	50	94	110	77	66	83	350	474	2080	514	468	100
8	54	100	111	74	64	77	380	448	1960	438	444	91
9	69	111	112	74	61	75	400	424	1820	420	414	94
10	74	116	118	72	60	70	430	418	1690	436	400	91
11	69	142	122	70	64	72	440	436	1600	450	366	84
12	76	159	124	68	70	74	500	480	1400	484	342	97
13	91	177	129	66	69	73	470	576	1230	522	328	105
14	97	188	132	65	64	71	450	692	1070	480	322	132
15	94	129	131	64	64	74	470	800	998	424	346	148
16	88	152	127	64	72	75	650	914	978	374	412	163
17	86	208	120	64	77	79	830	1060	1040	350	456	166
18	88	204	105	66	74	85	727	1220	1190	316	472	148
19	94	163	98	68	70	89	797	1360	1250	284	454	142
20	102	123	91	70	69	95	797	1510	1310	256	406	148
21	102	200	80	73	68	99	696	1630	1330	272	372	139
22	97	192	80	72	68	140	606	1680	1270	294	362	126
23	74	193	76	66	68	160	678	1730	1170	377	370	129
24	69	180	74	62	67	210	702	1900	1080	582	370	139
25	72	178	70	62	75	230	769	2100	1020	766	348	156
26	69	175	72	60	78	250	822	2180	974	748	332	170
27	86	160	70	58	77	250	755	2360	938	769	310	174
28	94	150	70	58	72	260	628	2630	878	646	280	181
29	91	143	69	59	72	270	570	2530	811	598	246	192
30	88	139	69	60	---	250	532	2220	755	678	216	196
31	91	---	68	61	---	220	---	2060	---	752	188	---
TOTAL	2302	4353	3139	2073	1951	3922	15932	37126	42362	16613	13259	4190
MEAN	74.3	145	101	66.9	67.3	127	531	1198	1412	536	428	140
MAX	102	208	132	77	78	270	830	2630	2260	790	814	196
MIN	36	91	68	58	58	70	220	418	755	256	188	84
AC-FT	4570	8630	6230	4110	3870	7780	31600	73640	84030	32950	26300	8310

CAL YR 1983 TOTAL 174826 MEAN 479 MAX 4390 MIN 24 AC-FT 346800
WTR YR 1984 TOTAL 147222 MEAN 402 MAX 2630 MIN 36 AC-FT 292000

06662000 LARAMIE RIVER NEAR LOOKOUT, WY

LOCATION.--Lat 41°45'44", long 105°41'16", in NE¼NW¼SE¼ sec.27, T.21 N., R.74 W., Albany County, Hydrologic Unit 10180010, on right bank 155 ft downstream from bridge on county road, 1.0 mi upstream from Wheatland Reservoir No. 2, and 9.0 mi northeast of Lookout.

DRAINAGE AREA.--2,174 mi^2, of which 603 mi^2, is probably noncontributing.

PERIOD OF RECORD.--May 1912 to December 1917, January 1921 to December 1927, April 1932 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1913-17. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,962.68 ft, National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1915, nonrecording gage and Apr. 22, 1915, to Aug. 31, 1917, water-stage recorder, at bridge, 155 ft upstream at same datum. Oct. 14, 1931, to Sept. 17, 1938, at site 125 ft upstream at same datum.

REMARKS.--Records good except those for period of no gage-height record, Apr. 1 to May 8, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 108,000 acres above station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1913-17, 1922-27, 1933-72), 131 ft^3/s, 94,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,380 ft^3/s, June 29, 1983, gage height, 6.99 ft; maximum gage height, about 8.0 ft, occurred in 1973 (backwater from ice); no flow at times in 1934-35, 1939-40, 1954-55, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,590 ft^3/s, May 29, gage height, 5.77 ft; minimum daily during period of operation, 111 ft^3/s, Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							230	680	2020	733	742	157
2							242	710	1900	738	820	150
3							245	735	1900	733	765	143
4							250	780	2030	760	790	136
5							290	760	2160	733	684	139
6							300	770	2210	638	540	134
7							400	700	2150	530	462	124
8							450	640	2040	438	426	117
9							490	526	1940	382	400	113
10							510	486	1810	392	372	113
11							560	458	1710	389	354	111
12							580	478	1580	396	316	111
13							650	548	1350	434	288	117
14							610	697	1130	462	267	126
15							600	765	1000	396	274	139
16							650	895	940	347	308	150
17							780	935	930	305	410	157
18							820	1060	1040	264	414	157
19							877	1190	1140	225	430	145
20							950	1350	1180	207	462	143
21							970	1540	1240	183	350	145
22							950	1680	1220	207	316	136
23							780	1740	1160	280	308	132
24							830	1760	1060	526	319	136
25							880	1940	995	666	302	147
26							970	2090	950	728	274	154
27							1070	2170	895	720	249	159
28							920	2330	855	697	219	162
29							850	2540	805	566	195	167
30							720	2430	751	584	177	172
31							---	2190	---	679	162	---
TOTAL							19424	37573	42091	15338	12395	4192
MEAN							647	1212	1403	495	400	140
MAX							1070	2540	2210	760	820	172
MIN							230	458	751	183	162	111
AC-FT							38530	74530	83490	30420	24590	8310

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY

LOCATION.--Lat 41°50'39", long 105°13'15", in NE¼SW¼SE¼ sec.27, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank just upstream from bridge on U.S. Highway 34, 900 ft upstream from Mule Creek, 2.9 mi upstream from Bluegrass Creek, and 20 mi southwest of Wheatland.

DRAINAGE AREA.--194 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft, from topographic map.

REMARKS.--Records fair. Seven small reservoirs above station, combined capacity, about 400 acre-ft, for irrigation. Diversions above station for irrigation of about 2,020 acres, of which about 80 acres lies below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s, May 14, 1984, gage height, 6.77 ft and May 22, 1983, gage height, 6.64 ft (backwater from bridge construction), from correlation with peak discharge at station 11.0 mi downstream; maximum gage height, 7.68 ft, July 22, 1983 (backwater from bridge construction); minimum daily discharge, 0.49 ft^3/s, Sept. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft^3/s, May 14, gage height, 6.77 ft; minimum daily during period of operation, 15 ft^3/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							23	191	185	48	78	40
2							23	225	177	55	73	40
3							22	255	166	52	68	37
4							21	262	170	55	63	35
5							22	280	161	56	59	31
6							31	300	158	55	65	25
7							34	290	152	54	69	24
8							41	275	143	53	65	23
9							56	298	138	63	60	21
10							63	397	134	99	67	18
11							67	453	125	92	64	18
12							66	570	116	85	58	18
13							65	805	113	78	76	18
14							65	943	116	75	67	19
15							67	865	117	74	63	19
16							69	793	103	69	58	19
17							79	575	102	68	56	19
18							102	493	99	65	65	19
19							109	449	95	64	58	20
20							118	485	91	64	72	20
21							114	477	79	69	69	17
22							117	362	75	72	60	18
23							138	285	73	262	56	21
24							200	318	74	166	52	21
25							262	306	68	140	51	23
26							285	250	68	113	48	24
27							219	234	56	99	41	22
28							196	195	54	87	40	22
29							202	177	49	81	37	18
30							193	184	47	76	36	15
31							---	172	---	80	36	---
TOTAL							3069	12164	3304	2569	1830	684
MEAN							102	392	110	82.9	59.0	22.8
MAX							285	943	185	262	78	40
MIN							21	172	47	48	36	15
AC-FT							6090	24130	6550	5100	3630	1360

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 1984.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
26...	1645	109	18.0	<.01	<.01	<.01	<.01	<.010	<.010
JUL									
17...	1200	89	18.0	<.01	<.01	<.01	<.01	<.010	.010
SEP									
18...	1430	41	18.0	<.01	<.01	<.01	<.01	<.010	<.010

06665790 SYBILLE CREEK ABOVE CANAL NO. 3, NEAR WHEATLAND, WY

LOCATION.--Lat 41°54'40", long 105°07'36", in NW¼SW¼NE¼ sec.4, T.22 N., R.69 W., Platte County, Hydrologic Unit 10180011, on right bank 100 ft upstream from State Highway 34, 200 ft downstream from Deadhead Creek, 2.7 mi upstream from canal No. 3, and 19.7 mi southwest of Wheatland.

PERIOD OF RECORD.--April 1980 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,040 ft, from topographic map.

REMARKS.--Records good except those for May 10-22, which are poor. Most of flow during irrigation season is water released from Wheatland Reservoir No. 2, capacity 98,930 acre-ft, on the Laramie River and diverted down Bluegrass Creek for irrigation of land near Wheatland. Diversions for irrigation of about 4,400 acres above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft³/s, May 13, 1984, gage height, 4.26 ft; no flow Sept. 1-4, 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,400 ft³/s, May 13, gage height, 4.26 ft; minimum daily during period of operation, 19 ft³/s, Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							48	365	123	138	68	81
2							49	425	106	133	60	81
3							49	514	130	126	40	75
4							48	559	162	128	36	75
5							51	595	148	133	34	73
6							51	608	153	136	34	73
7							52	577	171	138	41	77
8							59	550	159	136	54	96
9							68	590	138	140	88	99
10							73	853	123	198	101	94
11							75	1020	116	180	103	88
12							73	1150	108	159	90	88
13							73	1100	96	153	108	88
14							73	1080	88	153	106	59
15							73	1080	94	148	108	40
16							79	813	90	146	108	19
17							90	828	92	143	108	23
18							123	505	92	140	116	31
19							143	361	83	128	110	30
20							189	337	94	123	128	30
21							168	333	101	146	123	30
22							174	225	94	143	123	30
23							213	168	85	679	123	32
24							306	130	77	278	113	34
25							451	148	92	250	113	41
26							482	222	106	192	108	64
27							405	207	113	171	106	54
28							365	201	96	148	101	52
29							369	177	110	140	88	52
30							361	159	136	130	85	49
31							---	133	---	110	73	---
TOTAL							4833	16013	3376	5266	2797	1758
MEAN							161	517	113	170	90.2	58.6
MAX							482	1150	171	679	128	99
MIN							48	130	77	110	34	19
AC-FT							9590	31760	6700	10450	5550	3490

06669050 WHEATLAND CREEK BELOW WHEATLAND, WY

LOCATION.--Lat 42°05'05", long 104°57'02", in SW¼SW¼NE¼ sec.1, T.24 N., R.68 W., Platte County, Hydrologic Unit 10180011, 50 ft upstream from bridge on U.S. Highway 87, 50 ft downstream from sewage lagoons, and 1.6 mi north of Wheatland city limits.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
26...	1530	7.0	1300	8.2	13.5	8.5	110
JAN							
04...	1120	5.2	1330	--	3.0	5.7	57
26...	1030	6.1	1300	8.2	2.0	8.8	86
MAR							
08...	1030	4.2	1320	8.2	3.0	10.3	103
APR							
10...	1400	5.4	1350	8.3	10.0	9.7	118
MAY							
04...	1030	11	1280	8.3	8.0	10.0	115
JUN							
26...	1400	1.9	1220	8.7	19.0	8.7	127
JUL							
17...	1500	6.0	870	8.2	23.5	7.2	115
AUG							
08...	1500	4.0	1100	8.3	23.5	9.2	129
SEP							
18...	1330	31	760	8.2	17.0	9.1	111

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
26...	220	3.70	.300	1.9	2.2	.290
JAN						
04...	920	4.10	1.30	2.5	3.8	.680
26...	1600	3.70	1.70	2.1	3.8	.710
MAR						
08...	120	.100	1.50	1.7	3.2	.570
APR						
10...	80	3.50	.480	1.8	2.3	.340
MAY						
04...	88	4.60	.360	1.6	2.0	.220
JUN						
26...	1100	2.30	.120	3.4	3.5	.470
JUL						
17...	K1800	1.00	.190	1.6	1.8	.220
AUG						
08...	630	1.90	.380	2.7	3.1	.630
SEP						
18...	250	.600	.180	.92	1.1	.120

K-Results based on colony count outside the acceptable range (non-ideal colony count).

413918105021401 CHUGWATER CREEK AT PLATTE-LARAMIE COUNTY LINE, NEAR CHUGWATER, WY

LOCATION.--Lat 41°39'18", long 105°02'14", in NW¼NW¼NW¼ sec.5, T.19 N., R.68 W., Laramie County, Hydrologic Unit 10180011, at county road bridge, 1000 ft northwest of McDonald Ranch, about 4.2 mi downstream from Spring Creek, and 14 mi southwest of Chugwater.

PERIOD OF RECORD.--May to September 1984.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUL									
17...	1630	48	19.0	<.01	<.01	<.01	<.01	<.010	.010
SEP									
18...	1630	29	18.0	<.01	<.01	<.01	<.01	<.010	.040

06669500 CHUGWATER CREEK AT CHUGWATER, WY

LOCATION.--Lat 41°45'10", long 104°48'55", in NE¼NW¼NE¼ sec.31, T.21 N., R.66 W., Platte County, Hydrologic Unit 10180011, 270 ft upstream from old highway bridge, 0.25 mi southeast of Chughwater, and 9.5 mi upstream from headgate of Rammsey Ditch.

PERIOD OF RECORD.--May to September 1984.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY 18...	1200	562	14.0	.03	<.01	<.01	<.01	.010	.010
JUN 26...	1130	68	16.0	<.01	<.01	<.01	<.01	<.010	<.010
AUG 08...	1630	75	--	<.01	<.01	<.01	<.01	<.010	.030
SEP 18...	1100	32	12.0	<.01	<.01	<.01	<.01	<.010	.050

06669850 CHUGWATER CREEK NEAR UVA, WY

LOCATION.--Lat 42°07'12", long 104°51'05", in SE¼SE¼ sec.23, T.25 N., R.67 W., Platte County, Hydrologic Unit 10180011 0.5 mi upstream from mouth and 3.6 mi east of Uva.

PERIOD OF RECORD.--May to September 1984.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY 18...	1300	688	16.0	.03	<.01	<.01	<.01	.010	.050
JUN 26...	1500	109	20.5	<.01	<.01	<.01	<.01	<.010	<.010
AUG 08...	1300	113	21.0	<.01	<.01	<.01	<.01	<.010	.030
SEP 18...	1230	87	15.0	<.01	<.01	<.01	<.01	<.010	.020

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

LOCATION.--Lat 42°12'02", long 104°32'16", in NE¼SE¼NE¼ sec.28, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, on right bank 600 ft upstream from bridge on county road, 0.6 mi upstream from mouth, and 1.1 mi southwest of Fort Laramie.

DRAINAGE AREA.--4,564 mi², of which 631 mi² is probably noncontributing. Drainage area at mouth, 4,565 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310. Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie."

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft, from topographic map. Apr. 4, 1915, to Mar. 31, 1925, nonrecording gage at site 0.1 mi downstream at different datum. Apr. 1, 1925, to Sept. 30, 1932, nonrecording gage and Oct. 1, 1932, to Aug. 20, 1935, water-stage recorder at site 4.3 mi upstream at different datum. Aug. 21, 1935, to Nov. 2, 1970, water-stage recorder at site 0.3 mi upstream at different datum. Nov. 3, 1970, to May 9, 1973, water-stage recorder 0.1 mi downstream at different datum. May 10, 1973, to Apr. 5, 1977, water-stage recorder 4.3 mi upstream at different datum.

REMARKS.--Records fair except those for December to February, which are poor. Diversion, at times, to Gering-Fort Laramie Canal, 5.4 mi upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--28 years (water years 1957-84), 164 ft³/s, 118,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft³/s, May 10, 1973, gage height, 9.40 ft, site and datum then in use; no flow Jan. 31 to Mar. 20, Oct. 24 to Dec. 17, 1926, Mar. 1-26, 1927, Apr. 14, 1938 (all flow diverted by Gering-Fort Laramie Canal).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,540 ft³/s, May 16, gage height, 7.48 ft; minimum daily, 72 ft³/s, Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	124	214	169	420	421	430	2070	1590	384	503	247
2	177	128	217	186	420	421	434	2050	1640	325	531	243
3	180	136	227	198	420	421	471	2050	1780	171	594	243
4	189	141	237	201	422	425	530	2120	1840	154	618	247
5	189	149	240	201	422	430	555	2200	1880	142	612	239
6	169	155	258	217	420	430	607	2220	1890	133	606	243
7	152	163	237	227	420	430	656	2270	1840	124	594	235
8	152	174	237	230	420	430	661	2320	1840	116	565	216
9	152	186	230	240	418	434	707	2350	1810	121	519	213
10	157	192	244	244	418	430	802	2380	1820	107	476	205
11	152	195	247	244	418	430	808	2580	1600	102	434	191
12	131	201	251	240	420	430	814	2990	1250	92	393	191
13	119	211	244	244	420	430	826	3390	1310	94	374	184
14	116	201	247	242	418	430	839	3760	1340	124	341	184
15	114	204	247	228	416	430	845	4180	1350	124	314	188
16	114	201	244	227	412	430	845	4390	1350	148	305	198
17	114	204	230	228	408	430	839	4160	1130	127	297	220
18	112	192	208	231	408	430	839	3790	503	127	288	228
19	109	198	189	238	403	430	877	3400	434	127	284	228
20	85	195	180	268	416	425	1140	2970	393	130	280	228
21	83	204	168	270	412	425	1340	2560	369	130	288	228
22	79	217	162	260	412	363	1540	2360	360	130	318	220
23	74	220	161	268	421	403	1560	2210	379	256	318	213
24	72	220	168	320	421	425	1420	2000	398	235	318	209
25	75	208	157	362	421	430	1390	1900	428	284	305	213
26	83	211	164	377	421	430	1700	1790	428	275	301	224
27	75	211	167	382	421	425	1950	1740	434	255	288	228
28	79	214	168	403	430	430	2060	1710	434	292	280	239
29	87	214	167	423	412	425	2090	1730	413	323	267	251
30	98	214	170	432	---	430	2100	1720	379	374	247	259
31	114	---	170	430	---	425	---	1670	---	444	239	---
TOTAL	3779	5683	6450	8430	12110	13178	31675	79030	32612	5970	12097	6655
MEAN	122	189	208	272	418	425	1056	2549	1087	193	390	222
MAX	189	220	258	432	430	434	2100	4390	1890	444	618	259
MIN	72	124	157	169	403	363	430	1670	360	92	239	184
AC-FT	7500	11270	12790	16720	24020	26140	62830	156800	64690	11840	23990	13200

CAL YR 1983 TOTAL 258682 MEAN 709 MAX 4060 MIN 16 AC-FT 513100
WTR YR 1984 TOTAL 217669 MEAN 595 MAX 4390 MIN 72 AC-FT 431700

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 06...	1345	169	724	14.5	300	74	27	49	1	4.9
NOV 17...	1100	207	713	7.5	280	69	27	50	1	4.1
JAN 04...	0950	196	742	.5	300	76	27	53	1	4.3
FEB 15...	1200	417	746	4.0	310	78	28	49	1	4.4
MAR 21...	1300	424	738	6.5	300	77	26	47	1	4.3
MAY 01...	1200	2090	768	8.0	320	80	29	52	1	3.1
JUN 11...	1300	1820	594	17.0	230	59	21	36	1	3.1
JUL 17...	1415	128	697	19.0	280	72	24	47	1	4.0
AUG 15...	1550	316	649	25.0	280	72	24	44	1	3.6
SEP 18...	1730	231	660	21.0	280	70	25	45	1	3.5

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	200	180	14	.40	14	480	.66	220	.100	.030
NOV 17...	200	160	15	.50	5.3	450	.61	252	.200	.000
JAN 04...	220	160	15	.40	6.8	470	.65	251	.100	.140
FEB 15...	220	170	15	.60	11	490	.66	549	.200	.060
MAR 21...	220	150	16	.70	12	460	.63	532	.200	.000
MAY 01...	200	190	18	.50	11	500	.68	2840	.300	.040
JUN 11...	160	140	12	.50	11	380	.51	1860	.100	.090
JUL 17...	190	160	14	.30	16	450	.61	156	.100	.020
AUG 15...	200	150	13	.50	7.9	430	.59	371	.000	.020
SEP 18...	190	150	15	.50	13	440	.59	272	.000	.020

06671000 RAWHIDE CREEK NEAR LINGLE, WY

LOCATION.--Lat 42°07'32", long 104°19'36", in SE¼NE¼ sec.20, T.25 N., R.62 W., Goshen County, Hydrologic Unit 10180009, on right bank 200 ft upstream from bridge on U.S. Highway 26, 1.0 mi east of Lingle, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--522 mi².

PERIOD OF RECORD.--May 1928 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1440: 1932, 1936(M). WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,160 ft, from topographic map. See WSP 1918 for history of changes prior to May 16, 1955.

REMARKS.--Records good except those for period of no gage-height record, Apr. 4 to May 2, which are poor. Low flow represents return water from lands irrigated by Interstate Canal in Rawhide Creek basin. Six small reservoirs above station, combined capacity, about 460 acre-ft, for irrigation. Diversions for irrigation of about 1,600 acres above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--43 years (water years 1929-71), 21.5 ft³/s, 15,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft³/s, Sept. 7, 1946, gage height, 11.76 ft; no flow July 5-7, 1961, Apr. 12, 29, 1966, Mar. 20-28, 1967, Apr. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101 ft³/s, July 15, gage height, 4.22 ft; minimum daily during period of operation, 10 ft³/s, July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							16	23	21	16	34	22
2							15	23	20	16	36	19
3							15	23	24	24	39	24
4							16	23	29	13	28	27
5							17	23	29	12	21	29
6							17	24	21	14	21	26
7							17	25	19	15	22	27
8							17	25	32	17	16	27
9							17	24	36	15	17	26
10							19	24	36	16	16	25
11							19	24	35	15	15	33
12							19	23	30	11	16	32
13							19	22	32	11	17	30
14							19	22	36	11	21	30
15							21	30	36	27	21	35
16							21	43	33	32	24	40
17							21	43	33	19	27	54
18							21	41	36	13	30	53
19							21	39	45	10	27	50
20							23	38	42	19	24	45
21							23	36	38	27	25	40
22							23	35	33	27	27	35
23							23	31	33	30	24	36
24							23	30	31	43	25	39
25							30	28	30	39	27	46
26							27	25	32	37	25	45
27							25	29	30	32	22	45
28							23	27	25	27	19	48
29							23	16	22	22	19	40
30							23	17	18	19	20	32
31							---	19	---	29	23	---
TOTAL							613	855	917	658	728	1060
MEAN							20.4	27.6	30.6	21.2	23.5	35.3
MAX							30	43	45	43	39	54
MIN							15	16	18	10	15	19
AC-FT							1220	1700	1820	1310	1440	2100

06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY

LOCATION.--Lat 42°02'22", long 104°10'07", in SW¼NW¼ sec.23, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, on left bank 50 ft downstream from bridge on county road, 0.6 mi upstream from mouth, and 2.0 mi southeast of Torrington.

DRAINAGE AREA.--356 mi^2.

PERIOD OF RECORD.--May to September 1931, May to September 1932, May 1935 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft, from topographic map. Prior to June 12, 1935, nonrecording gage at site 1.0 mi upstream at different datum. June 12, 1935, to Sept. 30, 1945, water-stage recorder at site 100 ft downstream at datum 2.00 ft higher. Oct. 1, 1945, to Nov. 27, 1950, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.--Records good except those for period of backwater from the North Platte River, Apr. 25 to July 8, which are poor. Flow is mainly return water from irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1936-71), 21.6 ft^3/s, 15,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft^3/s, June 27, 1955, gage height, 10.31 ft, from floodmark; minimum daily, 0.40 ft^3/s, Jan. 28, 29, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 261 ft^3/s, July 16, gage height, 3.37 ft; maximum gage height, 3.82 ft, June 13, 14 (backwater from North Platte River); minimum daily discharge during period of operation, 11 ft^3/s, Apr. 12-19, May 2, 3, 9, 10, 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							12	14	47	52	114	78
2							12	11	48	57	81	78
3							12	11	48	52	78	79
4							14	13	54	55	74	71
5							16	14	54	56	71	75
6							14	13	55	55	71	79
7							13	12	56	58	63	78
8							12	12	54	61	59	74
9							12	11	56	68	59	78
10							13	11	58	74	59	77
11							14	12	64	52	59	76
12							11	12	50	45	58	75
13							11	12	61	45	60	73
14							11	13	61	47	59	69
15							11	13	57	49	58	66
16							11	14	63	143	59	65
17							11	14	63	68	64	65
18							11	21	60	58	66	64
19							11	20	65	59	72	60
20							16	16	60	65	69	58
21							20	13	58	65	66	59
22							22	14	56	64	69	56
23							15	12	54	64	67	69
24							14	11	58	68	75	71
25							38	11	63	124	74	72
26							41	11	64	114	78	65
27							16	14	58	108	80	61
28							14	14	58	103	80	51
29							14	18	59	101	74	44
30							16	16	56	107	75	37
31							---	44	---	136	76	---
TOTAL							458	447	1718	2273	2167	2023
MEAN							15.3	14.4	57.3	73.3	69.9	67.4
MAX							41	44	65	143	114	79
MIN							11	11	47	45	58	37
AC-FT							908	887	3410	4510	4300	4010

06673500 KATZER DRAIN NEAR HENRY, NE

LOCATION.--Lat 41°58'45", long 104°04'15", in NW¼NW¼SW¼ sec.10, T.23 N., R.60 W., Goshen County, WY, Hydrologic Unit 10180009, on left bank 0.2 mi upstream from bridge on county road, 0.8 mi upstream from mouth, and 1.7 mi southwest of Henry.

DRAINAGE AREA.--45.9 mi^2, of which 8.2 mi^2 is probably noncontributing.

PERIOD OF RECORD.--May 1928 to current year (no winter records prior to 1932 and since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WDR WY-77-1: 1975(M), 1976 (M).

GAGE.--Water-stage recorder. Altitude of gage is 4,040 ft, from topographic map. See WSP 1918 for history of changes prior to Dec. 1, 1950. Dec. 1, 1950, to Sept. 30, 1969, at site 1.0 mi upstream at different datum. Oct. 1, 1969, to Mar. 31, 1974, at site 0.2 mi downstream at different datum.

REMARKS.--Records good. Flow is mainly return water from land irrigated by Fort Laramie Canal.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1932-71), 19.6 ft^3/s, 14,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft^3/s, June 11, 1977, gage height, 8.56 ft, from rating curve extended above 130 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s, Jan. 14, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft^3/s, July 31, gage height, 1.87 ft; minimum daily during period of operation, 6.7 ft^3/s, Apr. 18, 19, May 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							8.5	11	29	35	85	76
2							8.9	10	29	36	82	74
3							8.1	11	32	38	83	74
4							8.9	10	50	42	79	76
5							12	9.6	49	45	77	83
6							12	9.2	58	42	80	86
7							10	9.2	55	44	76	84
8							9.2	8.9	53	42	75	88
9							8.9	8.9	56	48	70	89
10							8.5	8.9	58	57	71	86
11							8.5	8.5	57	44	68	78
12							8.1	8.5	56	48	70	82
13							7.7	8.1	75	45	68	84
14							7.4	7.7	68	46	59	87
15							7.0	8.1	70	48	59	92
16							7.0	7.4	68	79	55	87
17							7.0	6.7	74	73	51	81
18							6.7	8.5	71	77	52	64
19							6.7	7.4	70	74	59	61
20							9.2	8.5	75	73	69	62
21							10	21	70	80	69	67
22							9.6	30	58	79	74	70
23							8.5	29	50	79	76	70
24							8.1	35	47	78	74	65
25							19	44	47	86	77	70
26							25	40	44	77	76	70
27							16	42	40	80	74	67
28							13	34	44	77	69	49
29							12	32	47	81	64	18
30							12	26	43	75	67	15
31							---	24	---	96	65	---
TOTAL							303.5	533.1	1643	1924	2173	2155
MEAN							10.1	17.2	54.8	62.1	70.1	71.8
MAX							25	44	75	96	85	92
MIN							6.7	6.7	29	35	51	15
AC-FT							602	1060	3260	3820	4310	4270

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW¼NE¼SE¼ sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft upstream from bridge on NE State Highway 86, 700 ft downstream from Wyoming-Nebraska State line, and 0.5 mi south of Henry, NE.

DRAINAGE AREA.--22,218 mi², of which 1,929 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft, National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder at site 0.5 mi upstream at datum 4.42 ft higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder at site 0.5 mi upstream at datum 3.42 ft higher.

REMARKS.--Records fair except those for December and January, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft³/s, June 2, 1929, gage height, 7.04 ft, site and datum then in use; minimum daily, 13 ft³/s, May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,780 ft³/s, June 4, gage height, 6.42 ft; minimum daily, 337 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	499	512	390	569	1850	4530	4870	8080	6870	2830	3940
2	1140	499	518	397	575	1880	4520	4850	8020	6980	3040	3920
3	1150	502	530	403	575	2050	4440	4900	8210	6900	3110	3810
4	1110	505	532	412	575	2400	4520	5020	8540	6790	3050	3750
5	1000	506	530	420	575	2610	4570	5130	8420	6740	2980	3830
6	930	507	523	428	586	2990	4660	5170	8380	6790	2890	3670
7	881	500	529	432	586	3200	4710	5220	8190	6720	2800	2910
8	843	507	522	438	586	3230	4710	5260	8100	5690	2730	2190
9	817	524	513	435	586	3300	4690	5240	8120	3910	2640	2010
10	800	524	510	438	581	3330	4750	5170	7950	3150	2620	2000
11	787	518	517	438	622	3370	4780	5430	8160	2820	2540	1920
12	762	513	522	438	821	3380	4100	6010	7750	2850	2470	1730
13	732	518	522	432	913	3340	3570	6690	8160	2830	2510	1590
14	711	524	522	425	1000	3310	3360	7000	8520	2850	2450	1470
15	698	518	518	412	1100	3280	3270	7280	8380	2860	2440	1330
16	679	518	505	398	1100	3330	3250	7180	8060	3390	3000	1280
17	654	518	476	375	1110	3330	3170	7280	7660	3060	3820	1260
18	640	516	452	357	1100	3380	3130	7520	7180	2840	3980	1210
19	623	511	436	337	1090	3370	3230	7570	7410	2500	3840	1190
20	605	513	427	357	1110	3780	3610	7390	7420	2500	3820	1170
21	583	525	410	376	1230	4030	3740	7070	7000	2610	3620	1150
22	563	533	402	396	1490	4100	3960	7180	6970	2690	3840	1260
23	551	532	403	422	1660	4370	4080	7620	6610	2550	3970	1530
24	539	532	389	446	1710	4620	4170	8170	6230	2620	3880	1570
25	525	534	382	487	1750	4650	4290	8350	6450	2570	3990	1590
26	517	529	390	547	1780	4640	4560	8210	6660	2530	4000	1610
27	513	523	394	552	1810	4610	4720	8360	6490	2480	3790	1630
28	505	516	397	546	1810	4580	4800	8320	6470	2410	3740	1630
29	496	516	396	550	1840	4640	4770	8420	6400	2420	3800	1550
30	495	513	395	563	---	4570	4870	8350	6570	2400	3930	1220
31	495	---	397	563	---	4600	---	8230	---	2770	3920	---
TOTAL	22664	15493	14471	13610	30840	110120	125530	208460	226560	117090	102040	60920
MEAN	731	516	467	439	1063	3552	4184	6725	7552	3777	3292	2031
MAX	1320	534	532	563	1840	4650	4870	8420	8540	6980	4000	3940
MIN	495	499	382	337	569	1850	3130	4850	6230	2400	2440	1150
AC-FT	44950	30730	28700	27000	61170	218400	249000	413500	449400	232200	202400	120800

CAL YR 1983 TOTAL 997211 MEAN 2732 MAX 7710 MIN 131 AC-FT 1978000
WTR YR 1984 TOTAL 1047798 MEAN 2863 MAX 8540 MIN 337 AC-FT 2078000

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 06...	1800	919	819	8.0	15.0	8.6	101	64	290	80
NOV 17...	1500	522	860	8.4	9.0	11.4	117	280	290	79
JAN 04...	1300	412	800	8.3	4.5	11.0	99	K13	260	68
FEB 15...	1700	1100	--	--	3.0	--	--	--	280	72
MAR 22...	1030	4090	--	--	6.5	--	--	--	270	69
MAY 01...	1800	4940	700	8.1	8.5	10.6	107	110	260	67
JUN 11...	1745	8190	--	--	16.0	--	--	--	200	52
JUL 17...	1120	3060	--	--	20.0	--	--	--	210	55
AUG 16...	1100	2750	--	--	23.0	--	--	--	240	63
SEP 19...	1300	1160	--	--	15.0	8.0	92	130	260	69

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 06...	23	68	2	6.1	200	200	16	.40	21
NOV 17...	23	77	2	4.5	220	200	17	.40	17
JAN 04...	23	81	2	6.2	230	200	18	.30	18
FEB 15...	25	59	2	5.1	200	180	14	.40	14
MAR 22...	24	60	2	4.3	170	200	15	.60	7.0
MAY 01...	23	53	1	2.6	180	180	14	.50	11
JUN 11...	17	42	1	2.7	140	130	9.3	.30	10
JUL 17...	17	44	1	3.8	150	140	9.5	.20	14
AUG 16...	20	50	1	3.9	170	150	11	.40	9.8
SEP 19...	22	63	2	4.6	180	200	14	.40	18

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT									
06...	530	.73	1330	1.0	1.2	.060	1.4	1.5	.600
NOV									
17...	550	.75	775	1.0	.90	.100	1.1	1.2	.000
JAN									
04...	550	.75	614	1.2	1.1	.100	.70	.80	.010
FEB									
15...	490	.67	1450	--	.70	--	--	--	.090
MAR									
22...	480	.66	5320	--	.20	--	--	--	.000
MAY									
01...	460	.62	6120	.30	.30	<.080	--	.70	.000
JUN									
11...	350	.47	7680	--	.20	--	--	--	.340
JUL									
17...	370	.51	3090	--	.50	--	--	--	.210
AUG									
16...	410	.56	3040	--	.00	--	--	--	.020
SEP									
19...	500	.68	1560	--	.60	--	--	--	.030

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE¼NE¼ sec.33, T.33 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel on downstream side of bridge on State Highway 29, 0.5 mi km) south of Mitchell.

DRAINAGE AREA.--24,300 mi², approximately, of which about 22,300 m² contributes directly to surface runoff.

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft, National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE (since Glendo project).--27 years (water years 1958-84), 854 ft³/s, 618,700 acre-ft/yr; median of yearly mean discharges, 539 ft³/s, 390,500 acre-ft/yr. Figures are unadjusted for storage or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s, June 3, 1909, gage height, 6.45 ft, datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s; maximum gage height, 7.80 ft, May 29, 1984; minimum daily discharge observed, 25 ft³/s, Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,920 ft³/s, June 15, gage height, 7.74 ft; maximum gage height, 7.80 ft, May 29; minimum daily discharge, 580 ft³/s, Dec. 20, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2090	787	640	660	843	2230	5200	6110	8150	5810	2110	3010
2	1670	782	754	680	852	2260	5400	5910	8130	5910	2310	3060
3	1630	776	749	689	843	2360	5400	5790	8250	5790	2370	3120
4	1560	767	758	671	834	2690	5400	5810	8570	5900	2290	3110
5	1490	764	756	758	829	2980	5600	5910	8690	5480	2180	3200
6	1440	764	735	757	820	3230	5600	6020	8730	5360	2050	3230
7	1370	766	735	727	826	3520	5600	5950	8620	5290	1900	2740
8	1310	765	741	734	839	3590	5600	5980	8280	4850	1850	1970
9	1260	765	731	746	844	3670	5600	6060	8300	3810	1720	1810
10	1250	760	728	747	834	3730	5600	6090	8210	2820	1690	1810
11	1240	760	738	752	837	3800	6000	6230	8310	2110	1660	1780
12	1180	755	754	756	928	3870	5490	6720	8190	1870	1590	1640
13	1120	755	755	747	984	3930	4840	7240	7990	1750	1620	1520
14	1060	750	745	739	1020	3930	4510	7340	8490	1680	1610	1450
15	1010	746	718	725	1120	3960	4410	7710	8570	1620	1580	1370
16	944	736	701	745	1100	3960	4420	7840	8450	2360	1750	1320
17	905	744	680	740	1130	3980	4390	7800	7920	2460	2390	1370
18	885	747	600	740	1140	4040	4310	7970	7850	2190	2580	1350
19	869	749	587	720	1110	4090	4300	8330	7630	1860	2570	1330
20	866	747	580	720	1100	4260	4720	8330	7800	1810	2540	1280
21	872	749	600	720	1170	4670	4900	7900	7370	1840	2520	1230
22	873	754	600	720	1500	4780	4980	7730	7230	1990	2540	1230
23	866	738	580	748	1800	4910	5080	7820	7240	1830	2820	1530
24	853	739	580	753	1930	5200	5090	8370	6770	1820	2780	1700
25	841	751	600	759	2040	5340	5360	8640	6650	1910	2780	1980
26	836	751	600	812	2100	5390	5670	8640	6650	1820	2780	2330
27	827	737	620	822	2130	5390	5700	8600	6310	1770	2730	2520
28	803	740	620	826	2130	5280	5920	8710	6050	1680	2640	2740
29	803	747	640	825	2210	5260	6050	8670	5780	1640	2700	2540
30	793	727	640	820	---	5230	6190	8530	5610	1620	2760	2160
31	773	---	640	833	---	5200	---	8330	---	1950	2890	---
TOTAL	34289	22618	20905	23191	35843	126730	157330	227080	230790	90600	70300	61430
MEAN	1106	754	674	748	1236	4088	5244	7325	7693	2923	2268	2048
MAX	2090	787	758	833	2210	5390	6190	8710	8730	5910	2890	3230
MIN	773	727	580	660	820	2230	4300	5790	5610	1620	1580	1230
AC-FT	68010	44860	41470	46000	71090	251400	312100	450400	457800	179700	139400	121800

CAL YR 1983 TOTAL 1034154 MEAN 2833 MAX 8300 MIN 384 AC-FT 2051000
WTR YR 1984 TOTAL 1101106 MEAN 3008 MAX 8730 MIN 580 AC-FT 2184000

06755950 CROW CREEK AT F.E. WARREN AFB, WY

LOCATION.--Lat 41°08'02", long 104°50'25", in NE¼NW¼SW¼ sec.36, T.14 N., R.67 W., Laramie County, Hydrologic Unit 10190009, 1,400 ft upstream from bridge on U.S. Interstate 25, 0.2 mi southeast of Gate No. 1 of F.E. Warren AFB, and 2 mi downstream from mouth of Diamond Creek.

REMARKS.--Streamflow measured at 9th street bridge in Cheyenne.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY									
29...	1310	92	16.0	<.01	<.01	<.01	<.01	.010	.020
JUN									
28...	0830	21	16.0	<.01	<.01	<.01	<.01	<.010	<.010
JUL									
26...	0800	31	18.5	.04	<.01	<.01	<.01	.010	.030
AUG									
30...	1330	18	21.5	<.01	<.01	<.01	<.01	.010	.040
SEP									
26...	1100	15	9.0	<.01	<.01	<.01	<.01	<.010	.030

06756000 CROW CREEK NEAR CHEYENNE, WY

LOCATION.--Lat 41°07'09", long 104°45'33, in NW¼SW¼SE¼ sec.3, T.13 N., R.66 W., Laramie County, Hydrologic Unit 10190009, 400 ft downstream from Cheyenne Sewage Disposal Plant outlet, 1.3 mi upstream from Wyoming Herford Ranch Reservoir No. 1, and 3.4 miles southwest of State Capital Building in Cheyenne.

DRAINAGE AREA.--297 mi².

REMARKS.--Streamflow measured at 9th Street bridge in Cheyenne, and sample collected 1.7 mi upstream at bridge on College Drive.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
MAY									
29...	1430	92	18.0	.02	<.01	<.01	<.01	<.010	.010
JUN									
28...	0700	21	17.0	<.01	<.01	<.01	<.01	<.010	<.010
JUL									
26...	0930	31	20.0	.37	<.01	<.01	<.01	.010	.160
AUG									
30...	1400	18	22.0	.01	<.01	<.01	<.01	.010	.070
SEP									
26...	1200	15	8.5	<.01	<.01	<.01	<.01	<.010	.060

GREEN RIVER BASIN

09188500 GREEN RIVER AT WARREN BRIDGE, NEAR DANIEL, WY

LOCATION.--Lat 43°01'08", long 110°07'03", in SE¼SE¼NE¼ sec.8, T.35 N., R.111 W., Sublette County, Hydrologic Unit 14040101, on right bank 100 ft upstream from bridge on U.S. Highways 189 and 191, 3.4 mi upstream from Beaver Creek, and 12 mi north of Daniel.

DRAINAGE AREA.--468 mi^2.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,468.09 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1977, on left bank at same datum.

REMARKS.--Records poor. Diversions above station for irrigation of about 10,200 acres, of which about 6,100 acres are below station.

AVERAGE DISCHARGE.--53 years, 511 ft^3/s, 370,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,840 ft^3/s, June 9, 1972, gage height, 5.77 ft; minimum recorded, 31 ft^3/s, Nov. 26, 1933, gage height, 0.70 ft, from rating curve extended below 120 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,730 ft^3/s, July 2, gage height, 4.62; minimum daily, 100 ft^3/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	317	140	160	140	120	150	256	2360	2560	1280	471
2	495	311	130	160	150	120	160	275	2330	2650	1250	455
3	495	314	130	160	150	120	160	287	2070	2480	1100	444
4	490	306	140	180	150	120	160	287	1850	2220	983	413
5	490	299	140	190	140	110	160	316	1800	2090	879	388
6	488	312	130	190	140	110	160	299	1590	1990	879	369
7	477	308	130	190	140	110	170	363	1410	1990	837	360
8	468	310	140	190	140	110	180	275	1200	1990	813	403
9	449	260	140	190	140	120	210	393	1050	2130	782	423
10	496	260	150	180	140	120	200	529	930	2140	707	423
11	549	260	150	180	150	120	200	488	1010	2020	671	388
12	536	250	150	170	150	120	190	523	992	1730	644	403
13	509	230	150	160	150	120	180	714	947	1480	637	423
14	489	200	150	160	140	120	180	895	921	1360	597	418
15	497	180	150	150	130	110	190	1200	1100	1330	597	418
16	487	170	140	140	130	110	220	1730	1470	1330	591	403
17	463	180	140	130	130	110	250	1590	1760	1280	584	374
18	444	170	130	120	130	120	270	1410	1920	1220	604	360
19	424	160	130	110	130	130	270	1530	1920	1150	610	333
20	400	160	120	100	120	130	260	1780	1940	1130	604	320
21	388	150	120	130	110	140	263	1920	2040	1150	578	342
22	375	150	110	140	110	140	270	1740	2110	1200	584	418
23	363	150	110	150	110	130	300	1590	2140	1360	547	439
24	365	150	110	150	110	140	321	1990	2030	1600	505	529
25	360	160	120	160	120	140	322	2070	2000	1730	505	494
26	346	160	140	160	120	140	320	1620	2060	1690	488	460
27	336	150	160	160	120	140	310	1480	2200	1420	529	434
28	323	150	160	160	110	150	280	1360	2300	1330	541	423
29	315	150	150	150	110	150	260	1340	2350	1320	547	398
30	314	140	150	150	---	150	260	1600	2360	1300	517	383
31	304	---	170	140	---	150	---	1990	---	1310	488	---
TOTAL	13430	6467	4280	4860	3810	3920	6826	33840	52160	51680	21478	12309
MEAN	433	216	138	157	131	126	228	1092	1739	1667	693	410
MAX	549	317	170	190	150	150	322	2070	2360	2650	1280	529
MIN	304	140	110	100	110	110	150	256	921	1130	488	320
AC-FT	26640	12830	8490	9640	7560	7780	13540	67120	103500	102500	42600	24410

CAL YR 1983 TOTAL 224148 MEAN 614 MAX 2870 MIN 86 AC-FT 444600
WTR YR 1984 TOTAL 215060 MEAN 588 MAX 2650 MIN 100 AC-FT 426600

09189495 NORTH HORSE CREEK ABOVE SHERMAN RANGER STATION, WY

LOCATION.--Lat 42°56'47", long 110°23'40", in SW¼SE¼NE¼ sec.1, T.34 N., R.114 W., Sublette County, Hydrologic Unit 14040101, Bridger National Forest, on left bank 30 ft downstream from Spring Creek, 110 ft downstream from Forest Service bridge, 0.1 mi west of Sherman Ranger Station, and 16.5 mi west of Daniel.

DRAINAGE AREA.--42.8 mi².

PERIOD OF RECORD.--October 1982 to September 1984 (discontinued). Records are equivalent to those published October 1954 to September 1974 as Horse Creek at Sherman Ranger Station (sta. 09189500).

GAGE.--Water-stage recorder. Altitude of gage is 7,805 ft, from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--22 years (water years 1954-74, 1983-84), 69.8 ft³/s, 50,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s, June 1, 1956; maximum gage height, 7.88 ft, June 15, 1974, site and datum then in use; minimum daily discharge, 1.4 ft³/s, Aug. 11, 14, 15, 19, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	1800	332	2.58	May 31	--	*918	a*3.68
May 20	2200	389	2.71	June 17	2300	762	3.39
May 24	0800	570	3.07				

a-from floodmarks.

Minimum daily discharge, 5.0 ft³/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	14	12	9.4	8.8	6.6	5.8	26	680	250	41	13
2	19	12	13	9.4	8.2	6.6	5.6	26	600	230	39	12
3	22	13	13	9.4	8.2	6.6	7.0	25	560	220	37	12
4	18	14	13	9.4	8.2	6.6	6.6	26	520	200	35	11
5	17	16	12	9.4	8.2	6.4	5.8	26	460	180	32	11
6	14	19	11	9.4	8.2	6.4	5.4	24	420	170	30	15
7	12	22	12	8.8	7.6	6.4	5.8	24	340	160	28	18
8	10	20	13	8.8	7.6	6.4	5.4	25	320	170	27	16
9	10	18	13	9.4	7.6	6.4	5.8	32	270	160	25	14
10	22	17	13	9.6	8.0	6.0	5.8	43	260	150	24	11
11	22	17	12	10	8.0	6.0	5.8	63	260	140	22	11
12	18	19	12	10	7.6	6.0	6.4	98	290	130	22	24
13	14	23	12	10	7.8	6.0	5.4	138	350	120	22	16
14	18	25	12	10	7.6	6.4	6.4	174	400	110	21	15
15	16	24	11	9.6	7.2	6.0	6.0	227	520	100	19	14
16	12	21	11	9.0	7.2	6.0	6.8	262	521	100	20	14
17	14	18	10	7.4	7.2	6.0	7.1	156	607	94	21	13
18	15	17	9.0	6.9	7.2	6.6	9.8	157	522	88	24	13
19	10	16	8.4	7.4	6.8	7.0	11	209	494	82	24	14
20	11	15	7.4	8.0	6.8	6.2	8.5	301	528	78	24	14
21	13	14	6.4	8.2	6.8	5.8	11	321	485	72	18	15
22	12	13	5.6	8.4	6.6	5.8	18	194	443	68	18	16
23	13	13	5.0	8.6	7.0	5.8	30	283	405	64	18	16
24	15	13	5.4	9.0	7.0	5.8	34	510	395	60	18	18
25	10	15	7.6	9.0	7.0	5.8	35	337	395	56	18	17
26	12	14	8.6	9.0	6.6	5.8	37	260	383	52	18	15
27	11	11	8.6	9.0	6.6	7.0	35	230	348	56	17	14
28	9.7	12	8.6	9.0	6.6	7.2	33	240	320	52	17	13
29	9.6	13	8.0	9.0	6.6	6.2	32	350	300	49	15	12
30	9.1	11	9.4	9.0	---	6.6	29	560	280	46	13	11
31	12	---	9.4	8.8	---	6.2	---	700	---	44	13	---
TOTAL	435.4	489	312.4	278.3	214.8	194.6	426.2	6047	12676	3551	720	428
MEAN	14.0	16.3	10.1	8.98	7.41	6.28	14.2	195	423	115	23.2	14.3
MAX	22	25	13	10	8.8	7.2	37	700	680	250	41	24
MIN	9.1	11	5.0	6.9	6.6	5.8	5.4	24	260	44	13	11
AC-FT	864	970	620	552	426	386	845	11990	25140	7040	1430	849

CAL YR 1983 TOTAL 26079.8 MEAN 71.5 MAX 674 MIN 4.8 AC-FT 51730
WTR YR 1984 TOTAL 25772.7 MEAN 70.4 MAX 700 MIN 5.0 AC-FT 51120

09189550 SOUTH HORSE CREEK NEAR MERNA, WY

LOCATION.--Lat 42°54'21", long 110°19'39", in NE¼SW¼NW¼ sec.22, T.34 N., R.113 W., Sublette County, Hydrologic Unit 14040101, on right bank 180 ft upstream from bridge, 400 ft upstream from Horse Pasture Draw, 4.9 mi southeast of Merna, and 13.3 mi west of Daniel.

DRAINAGE AREA.--33.3 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,565 ft, from topographic map.

REMARKS.--Record good except those for November to March, which are poor. Diversion for irrigation of about 2,880 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 394 ft^3/s, Apr. 21, 1984, gage height, 5.09 ft; minimum daily, 0.40 ft^3/s, Feb. 21, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 394 ft^3/s, Apr. 21, gage height, 5.09 ft; minimum daily, 0.40 ft^3/s, Feb. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	11	5.0	2.8	1.2	2.0	10	58	167	44	41	4.7
2	12	11	4.9	2.7	1.2	2.1	13	75	123	36	36	4.5
3	12	10	5.2	2.8	1.4	1.6	16	111	122	32	26	3.8
4	10	10	5.4	3.0	1.6	1.0	20	73	103	46	19	3.4
5	10	11	5.0	3.0	1.2	.54	19	52	98	40	19	3.3
6	11	12	4.8	2.8	1.2	.80	21	23	99	32	17	4.1
7	11	12	5.2	2.7	1.4	1.6	20	20	101	30	15	7.4
8	10	12	5.4	2.6	1.6	1.8	21	30	91	33	13	5.0
9	10	10	4.9	2.5	1.2	2.0	26	62	78	31	11	4.2
10	13	9.0	5.0	2.5	1.4	2.2	24	52	79	47	11	3.1
11	14	8.0	5.2	2.5	1.8	2.5	20	50	88	54	10	2.9
12	13	9.0	4.9	2.4	2.0	2.8	18	70	73	48	10	8.2
13	11	9.6	4.7	2.4	2.0	2.7	19	91	71	44	10	6.7
14	12	9.6	4.5	2.3	1.8	3.0	17	128	87	43	10	4.5
15	12	8.4	4.4	2.3	1.4	3.3	20	137	107	39	8.9	4.0
16	11	7.6	4.2	2.2	1.8	3.5	44	151	118	35	9.6	3.8
17	11	8.8	3.9	1.6	2.0	3.4	83	99	96	35	10	3.5
18	11	8.4	3.5	.60	1.2	3.4	106	89	98	34	8.4	5.3
19	11	7.8	3.0	.60	.80	4.0	148	105	81	32	13	5.1
20	9.4	7.0	2.6	.80	.60	4.5	218	132	90	30	18	5.0
21	9.8	6.6	2.3	1.4	.40	5.0	356	195	88	29	10	6.4
22	10	6.0	2.1	1.6	.60	5.2	238	129	83	42	8.3	7.6
23	9.9	6.0	1.8	1.6	1.0	5.4	207	117	77	40	8.7	12
24	11	6.4	2.0	2.0	1.4	5.8	180	171	74	33	9.8	15
25	10	6.6	2.4	2.0	1.4	6.4	148	127	74	27	8.2	12
26	9.1	5.8	3.0	2.1	1.2	7.0	132	95	77	24	9.8	11
27	9.5	5.2	3.5	2.0	1.2	7.6	127	93	75	19	7.5	11
28	9.1	5.4	3.3	2.0	1.2	8.0	119	96	61	28	7.4	10
29	9.0	5.8	3.0	1.8	1.4	8.4	91	111	49	23	6.4	8.7
30	9.1	5.4	2.6	1.2	---	8.8	70	134	54	22	4.6	8.3
31	9.5	---	3.0	1.2	---	9.0	---	173	---	20	4.6	---
TOTAL	330.2	251.4	120.7	64.00	38.60	125.34	2551	3049	2682	1072	401.2	194.5
MEAN	10.7	8.38	3.89	2.06	1.33	4.04	85.0	98.4	89.4	34.6	12.9	6.48
MAX	14	12	5.4	3.0	2.0	9.0	356	195	167	54	41	15
MIN	9.0	5.2	1.8	.60	.40	.54	10	20	49	19	4.6	2.9
AC-FT	655	499	239	127	77	249	5060	6050	5320	2130	796	386

CAL YR 1983 TOTAL 11308.04 MEAN 31.0 MAX 327 MIN .78 AC-FT 22430
WTR YR 1984 TOTAL 10879.94 MEAN 29.7 MAX 356 MIN .40 AC-FT 21580

09190000 HORSE CREEK NEAR DANIEL, WY

LOCATION.--Lat 42°55'42", long 110°11'52", in SW¼NE¼SE¼ sec.10, T.34 N., R.112 W., Sublette County, Hydrologic Unit 14040101, on left bank 7.0 mi northwest of Daniel.

DRAINAGE AREA (REVISED).--106 mi^2.

PERIOD OF RECORD.--October 1931 to September 1954, October 1982 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 7,348.60 ft, National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1948, at site 350 ft downstream at datum 1.82 ft higher. Dec. 1, 1948 to Sept. 30, 1954, at present site at datum 1.55 ft higher.

REMARKS.--Records good except those for October to March, and May, which are poor. Diversion for irrigation of about 16,300 acres (part of which is below station) above station.

AVERAGE DISCHARGE.--25 years (1931-54, 1983-84), 67.1 ft^3/s, 48,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft^3/s, May 31, 1936, gage height, 3.53 ft, site and datum then in use, from rating curve extended above 800 ft^3/s; maximum gage height, 4.42 ft, May 29, 1951, datum then in use; minimum daily discharge, 1.0 ft^3/s, July 22, 23, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 944 ft^3/s, June 1, gage height, 3.82 ft; minimum daily, 13 ft^3/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	29	23	20	20	21	24	93	841	240	137	30
2	34	29	24	20	19	22	25	108	588	210	167	30
3	35	29	24	20	20	21	26	160	581	170	120	29
4	37	27	24	20	20	20	27	140	525	130	91	28
5	34	29	23	20	20	19	27	120	501	110	89	27
6	33	33	22	20	19	20	27	100	457	100	91	32
7	31	35	23	19	18	20	27	100	447	88	80	35
8	29	33	24	19	19	21	27	100	379	102	66	36
9	29	30	24	20	18	21	27	110	326	93	60	33
10	35	29	24	20	19	20	27	140	306	103	53	29
11	37	31	23	20	20	21	26	200	392	103	48	28
12	38	35	23	21	20	21	24	300	323	91	46	40
13	35	40	23	21	20	21	24	360	310	83	45	40
14	32	43	23	20	20	22	24	400	409	79	44	33
15	33	42	22	20	19	21	26	500	549	75	43	30
16	32	37	22	19	20	21	35	580	632	74	45	29
17	31	32	22	17	21	20	47	350	655	73	54	27
18	31	30	20	18	20	21	65	340	694	67	46	27
19	32	28	17	19	19	22	77	450	580	60	50	26
20	27	27	16	20	18	21	69	580	609	61	69	24
21	27	25	15	20	18	22	70	670	605	65	51	30
22	27	23	14	20	18	21	95	420	538	112	42	36
23	27	23	13	21	19	21	124	340	480	136	41	50
24	27	24	15	21	20	21	146	507	460	120	43	75
25	27	26	18	21	20	21	128	437	450	96	42	58
26	26	24	20	21	21	22	97	317	400	91	49	53
27	26	21	20	21	21	23	84	304	350	80	43	53
28	25	22	20	21	20	23	88	330	300	100	38	52
29	25	24	19	21	19	23	87	400	280	93	35	48
30	25	22	20	20	---	23	82	536	270	85	32	43
31	27	---	20	20	---	23	---	711	---	80	31	---
TOTAL	943	882	640	620	565	659	1682	10203	14237	3170	1891	1111
MEAN	30.4	29.4	20.6	20.0	19.5	21.3	56.1	329	475	102	61.0	37.0
MAX	38	43	24	21	21	23	146	711	841	240	167	75
MIN	25	21	13	17	18	19	24	93	270	60	31	24
AC-FT	1870	1750	1270	1230	1120	1310	3340	20240	28240	6290	3750	2200

CAL YR 1983 TOTAL 39979 MEAN 110 MAX 908 MIN 13 AC-FT 79300
WTR YR 1984 TOTAL 36603 MEAN 100 MAX 841 MIN 13 AC-FT 72600

09191300 SOUTH COTTONWOOD CREEK NEAR BIG PINEY, WY

LOCATION.--Lat 42°45'53", long 110°31'12", in SE¼NW¼NE¼ sec.15, T.32 N., R.115 W., Sublette County, Hydrologic Unit 14040101, Bridger National Forest, on left bank, on upstream side of Forest Service bridge, 0.25 mi downstream from Lander Creek, and 24 mi northwest of Big Piney.

DRAINAGE AREA.--21.4 mi^2.

PERIOD OF RECORD.--October 1982 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,250 ft, from topographic map.

REMARKS.--Records good except those for November to April, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340 ft^3/s, July 9, 1983, gage height, 2.77 ft; maximum gage height, 2.93 ft, Feb. 23, 1984 (backwater from ice); minimum daily discharge, 6.3 ft^3/s, Apr. 27, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 287 ft^3/s, July 29, gage height, 2.68 ft; maximum gage height, 2.93 ft, Feb. 23 (backwater from ice); minimum daily discharge, 8.8 ft^3/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	20	17	15	14	10	9.1	8.9	183	225	70	23
2	23	20	17	15	14	10	9.0	9.4	163	213	61	22
3	24	19	16	15	14	10	9.0	10	162	210	55	21
4	23	19	16	15	15	11	9.5	10	146	208	54	20
5	22	20	15	15	14	11	10	10	138	194	52	20
6	22	19	14	15	14	11	9.0	20	122	179	47	22
7	22	20	15	14	14	11	8.9	14	112	175	43	21
8	22	19	15	14	12	11	8.9	10	100	186	40	21
9	23	18	16	15	10	11	9.0	12	91	168	38	20
10	24	18	17	15	10	10	9.5	14	90	152	36	18
11	24	18	16	16	10	10	10	15	85	142	35	20
12	23	18	15	16	11	10	9.5	19	79	131	35	23
13	22	18	14	16	11	10	9.0	20	82	125	34	18
14	22	19	15	14	11	11	9.5	21	95	118	32	18
15	22	19	14	15	11	10	9.5	26	121	111	31	18
16	22	19	13	15	11	10	10	34	150	105	32	18
17	21	18	13	13	11	11	10	32	176	100	35	18
18	22	19	13	11	11	12	11	33	192	93	32	18
19	21	18	13	13	10	12	10	38	188	89	33	18
20	20	18	13	14	10	10	9.9	49	211	85	34	18
21	20	17	12	15	9.5	10	9.5	58	228	85	30	22
22	20	16	10	15	10	10	10	55	222	91	29	21
23	21	17	8.8	16	11	10	9.6	54	214	80	32	24
24	21	18	9.0	17	11	11	11	73	215	74	30	22
25	20	19	13	18	11	12	11	67	227	69	28	21
26	20	18	14	18	10	14	9.5	62	243	66	27	20
27	20	17	14	18	10	14	9.0	64	245	65	26	19
28	20	18	14	18	10	14	9.2	77	243	76	25	18
29	20	17	13	18	10	13	9.2	99	241	69	24	18
30	20	16	15	17	---	12	9.2	133	244	62	24	17
31	20	---	15	16	---	11	---	180	---	67	24	---
TOTAL	669	549	434.8	477	330.5	343	287.5	1327.3	5008	3813	1128	597
MEAN	21.6	18.3	14.0	15.4	11.4	11.1	9.58	42.8	167	123	36.4	19.9
MAX	24	20	17	18	15	14	11	180	245	225	70	24
MIN	20	16	8.8	11	9.5	10	8.9	8.9	79	62	24	17
AC-FT	1330	1090	862	946	656	680	570	2630	9930	7560	2240	1180

CAL YR 1983 TOTAL 16025.6 MEAN 43.9 MAX 288 MIN 6.3 AC-FT 31790
WTR YR 1984 TOTAL 14964.1 MEAN 40.9 MAX 245 MIN 8.8 AC-FT 29680

09192600 GREEN RIVER NEAR BIG PINEY, WY

LOCATION.--Lat 42°34'14", long 109°56'58", in NE¼NE¼NE¼ sec.21, T.30 N., R.110 W., Sublette County, Hydrologic Unit 14040101, at bridge on State Secondary Highway 1801, 1.9 mi upstream from New Fork River, 8.4 mi northeast of Big Piney, and 16.2 mi southwest of Boulder.

DRAINAGE AREA.--1,260 mi^2, approximately.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
07...	1030	670	352	10.0	180	52	13	5.1	.2	.80
FEB										
29...	1445	200	530	.0	280	79	20	7.9	.2	.90
APR										
24...	1015	1700	487	5.0	240	60	21	14	.4	1.9
JUN										
05...	1345	2780	335	10.0	170	48	12	6.5	.2	.60

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT										
07...	130	58	1.8	.20	3.9	210	.29	385	.000	.030
FEB										
29...	160	120	1.0	.20	7.6	330	.45	180	.000	.010
APR										
24...	210	65	3.6	.40	8.5	300	.41	1380	.000	.040
JUN										
05...	150	32	2.0	.20	5.3	200	.27	1480	.100	.000

09196500 PINE CREEK ABOVE FREMONT LAKE, WY

LOCATION.--Lat 43°01'50", long 109°46'10", in S½ sec.5, T.35 N., R.108 W., Sublette County, Hydrologic Unit 14040102, Bridger National Forest, on right bank 0.5 mi upstream from Fremont Lake, 0.5 mi downstream from Fremont Creek, and 12 mi northeast of Pinedale.

DRAINAGE AREA.--75.8 mi².

PERIOD OF RECORD.--October 1954 to current year.

REVISED RECORDS.--WSP 1443: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,540 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--30 years, 180 ft³/s, 130,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s, June 16, 1959, gage height, 7.15 ft; minimum daily, 3.3 ft³/s, Apr. 4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 31	2330	1,370	6.03	July 23	1430	882	5.30
June 30	0700	*1,710	*6.54				

Minimum daily discharge, 12 ft³/s, Jan. 19, Mar. 5-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	93	50	28	14	14	13	33	1160	1430	386	106
2	183	90	49	25	14	13	13	33	882	1150	332	104
3	202	87	48	25	14	13	13	32	825	1100	287	101
4	192	84	48	25	14	13	13	32	674	1060	254	98
5	189	84	47	24	14	12	13	33	588	1070	231	96
6	196	84	48	24	14	12	14	33	471	1000	213	98
7	210	83	49	23	14	12	15	32	384	972	197	99
8	212	83	48	22	13	12	14	32	315	1060	184	97
9	205	78	49	22	13	12	15	34	265	967	172	96
10	211	81	50	21	13	12	15	35	243	852	164	96
11	212	79	50	21	14	12	15	37	235	712	161	98
12	202	78	51	20	14	12	15	45	208	643	155	116
13	194	78	50	20	14	12	15	73	232	604	150	118
14	201	76	48	19	16	12	15	123	375	575	145	117
15	199	73	46	18	16	13	16	223	730	568	141	116
16	185	72	45	17	16	13	18	357	1130	536	142	115
17	176	71	44	17	16	13	25	265	1070	485	145	113
18	168	71	43	15	16	13	36	242	1100	446	141	109
19	155	68	41	12	15	13	40	264	1090	427	144	106
20	146	68	40	13	14	13	40	331	1240	402	143	104
21	138	64	38	15	13	13	40	347	1400	369	139	116
22	133	61	36	16	13	13	41	301	1400	466	134	120
23	131	60	34	16	14	13	43	340	1250	824	128	161
24	131	59	35	16	14	13	42	495	1230	741	121	190
25	124	59	36	16	14	14	41	463	1370	546	118	199
26	120	57	36	16	14	14	38	374	1470	459	117	203
27	116	56	34	16	14	14	38	320	1500	435	113	202
28	110	53	31	16	14	14	36	335	1440	396	113	192
29	106	53	29	16	14	14	34	473	1420	400	112	182
30	100	52	27	15	---	14	33	780	1660	508	111	174
31	96	---	28	14	---	14	---	1230	---	461	109	---
TOTAL	5117	2155	1308	583	412	401	759	7747	27357	21664	5202	3842
MEAN	165	71.8	42.2	18.8	14.2	12.9	25.3	250	912	699	168	128
MAX	212	93	51	28	16	14	43	1230	1660	1430	386	203
MIN	96	52	27	12	13	12	13	32	208	369	109	96
AC-FT	10150	4270	2590	1160	817	795	1510	15370	54260	42970	10320	7620

CAL YR 1983 TOTAL 82934 MEAN 227 MAX 2120 MIN 13 AC-FT 164500
WTR YR 1984 TOTAL 76547 MEAN 209 MAX 1660 MIN 12 AC-FT 151800

09203000 EAST FORK RIVER NEAR BIG SANDY, WY

LOCATION.--Lat 42°40', long 109°25', in sec.7, T.31 N., R.105 W., Sublette County, Hydrologic Unit 14040102, on left bank 1.0 mi downstream from Jim Creek and 4.0 mi northeast of Big Sandy.

DRAINAGE AREA.--79.2 mi².

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1967, published as East Fork near Big Sandy. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 7,800 ft, by barometer.

REMARKS.--Records good except those for November to March, which are poor. No diversion above station.

AVERAGE DISCHARGE.--46 years, 104 ft³/s, 75,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s, June 11, 1965, gage height, 7.16 ft, from rating curve extended above 1,200 ft³/s on basis of slope-area measurement at gage height 6.88 ft; minimum observed, 1.2 ft³/s, Jan. 4, 1940, Jan. 25, 1977 (discharge measurements).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 24	0500	955	5.71	June 16	0530	1,010	5.82
June 1	0030	*1,260	*6.26				

Minimum daily discharge, 7.5 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	34	27	14	13	14	14	31	1040	503	116	36
2	58	35	27	13	13	16	14	32	738	395	110	33
3	60	35	27	13	13	16	14	31	702	361	104	30
4	56	34	25	14	13	16	14	30	564	339	86	28
5	52	34	25	14	13	15	14	31	554	336	74	26
6	52	37	25	14	13	14	14	29	478	294	68	27
7	50	39	25	14	13	14	14	29	392	272	61	41
8	48	37	25	13	13	14	15	32	330	298	54	38
9	44	37	26	13	13	14	15	41	274	303	50	34
10	50	35	27	13	13	15	14	54	247	302	46	30
11	52	36	27	13	13	15	14	55	256	231	43	30
12	49	38	25	13	13	15	14	73	245	194	40	118
13	47	40	24	13	13	15	15	125	307	178	42	114
14	48	42	23	13	13	15	15	186	575	168	39	81
15	52	42	22	12	14	15	17	350	785	156	38	66
16	48	39	20	12	14	14	20	450	890	144	46	58
17	46	37	18	12	14	14	26	400	792	131	49	53
18	43	40	17	10	14	14	34	500	753	122	49	48
19	36	[illegible]	15	9.0	13	15	38	600	673	115	47	43
20	42	[illegible]	14	8.0	11	15	37	750	733	110	53	40
21	40	38	12	7.5	11	16	35	850	756	109	48	50
22	39	35	10	9.0	11	16	35	650	742	171	41	68
23	39	33	9.0	10	11	16	36	800	644	179	39	89
24	41	31	10	12	11	15	34	920	602	155	44	124
25	39	31	11	14	12	15	35	655	617	139	42	103
26	41	31	13	15	13	15	34	463	561	125	61	94
27	39	28	15	14	13	15	35	447	562	112	54	90
28	37	28	13	14	13	14	31	518	550	104	47	79
29	36	28	12	14	13	14	30	694	506	93	40	72
30	33	28	12	14	---	14	33	964	546	83	37	67
31	32	---	14	13	---	14	---	1160	---	87	34	---
TOTAL	1408	1062	595.0	386.5	370	459	710	11950	17414	6309	1702	1810
MEAN	45.4	35.4	19.2	12.5	12.8	14.8	23.7	385	580	204	54.9	60.3
MAX	60	42	27	15	14	16	38	1160	1040	503	116	124
MIN	32	28	9.0	7.5	11	14	14	29	245	83	34	26
AC-FT	2790	2110	1180	767	734	910	1410	23700	34540	12510	3380	3590

CAL YR 1983 TOTAL 50392.5 MEAN 138 MAX 1260 MIN 9.0 AC-FT 99950
WTR YR 1984 TOTAL 44175.5 MEAN 121 MAX 1160 MIN 7.5 AC-FT 87620

09205000 NEW FORK RIVER NEAR BIG PINEY, WY

LOCATION.--Lat 42°34'02", long 109°55'46", in SE¼NE¼NE¼ sec.22, T.30 N., R.110 W., Sublette County, Hydrologic Unit 14040102, on right bank 35 ft downstream from old highway bridge, 3.4 mi upstream from mouth, and 9.5 mi northeast of Big Piney.

DRAINAGE AREA.--1,230 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power development, and diversions for irrigation of about 62,100 acres above station.

AVERAGE DISCHARGE.--30 years, 747 ft^3/s, 541,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s, June 10, 1972, gage height, 8.15 ft; minimum daily, 90 ft^3/s, Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,080 ft^3/s, June 2, gage height, 5.88 ft; minimum daily, 170 ft^3/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	853	704	300	310	260	250	250	417	4400	3900	1860	447
2	863	697	360	290	270	260	260	434	4950	4210	1760	442
3	892	696	420	300	270	250	270	449	4480	3800	1630	426
4	930	679	450	320	280	240	260	434	4190	3310	1480	397
5	943	629	440	310	270	210	280	417	3730	3010	1380	384
6	1000	609	430	310	270	210	320	402	3370	2820	1180	384
7	1010	603	450	310	270	220	350	385	3010	2640	1050	391
8	1000	628	480	300	280	230	380	369	2510	2520	955	395
9	1010	633	480	300	270	240	404	365	2140	2650	870	400
10	1050	581	490	300	270	240	391	372	1840	2670	821	384
11	1050	577	500	290	280	240	365	386	1780	2610	776	382
12	1040	580	500	290	300	240	337	392	1760	2340	744	595
13	1020	736	490	280	300	240	316	400	1600	2080	712	535
14	1020	774	480	280	300	240	324	473	1570	1980	660	497
15	1040	736	470	270	290	240	338	621	1820	1790	646	454
16	1020	744	450	270	300	230	416	884	2240	1630	667	446
17	1000	739	440	250	300	230	592	1140	2750	1460	697	423
18	958	721	430	200	300	230	861	1460	3170	1370	889	405
19	944	677	400	180	260	240	1110	1590	3490	1280	912	394
20	927	665	350	170	220	250	1030	1830	3610	1320	675	385
21	917	662	300	180	210	260	850	2220	3810	1360	616	393
22	899	582	250	220	220	260	713	2470	4070	1510	596	469
23	875	485	230	260	240	250	722	2610	4200	1950	563	552
24	876	505	250	280	250	250	636	2830	4240	2120	551	937
25	855	561	280	290	250	260	558	3190	4120	1900	538	1110
26	826	536	300	300	250	250	498	2830	4060	1910	572	690
27	812	496	320	290	230	250	442	2410	4000	1710	575	1150
28	779	419	290	290	230	240	422	2180	3990	1610	549	692
29	738	350	270	290	230	250	437	2220	3500	1570	509	635
30	724	240	290	280	---	250	424	2520	3340	1500	478	618
31	702	---	330	250	---	240	---	3220	---	1440	460	---
TOTAL	28573	18244	11920	8460	7670	7490	14556	41920	97740	67970	26371	15812
MEAN	922	608	385	273	264	242	485	1352	3258	2193	851	527
MAX	1050	774	500	320	300	260	1110	3220	4950	4210	1860	1150
MIN	702	240	230	170	210	210	250	365	1570	1280	460	382
AC-FT	56670	36190	23640	16780	15210	14860	28870	83150	193900	134800	52310	31360

CAL YR 1983 TOTAL 405460 MEAN 1111 MAX 6370 MIN 210 AC-FT 804200
WTR YR 1984 TOTAL 346726 MEAN 947 MAX 4950 MIN 170 AC-FT 687700

09205000 NEW FORK RIVER NEAR BIG PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1969.
WATER TEMPERATURES: October 1965 to September 1969.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
07...	0920	1020	170	11.0	53	15	3.7	6.9	.4	.00
JAN										
10...	1215	293	207	.5	73	24	3.1	7.2	.4	.30
APR										
24...	1215	676	263	7.0	110	29	8.5	15	.7	1.9
JUN										
05...	1630	3470	78	9.5	22	8.9	.00	3.5	.3	.00

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
07...	65	5.0	1.8	.00	4.9	76	.10	210	.000	<.190
JAN										
10...	89	6.1	2.4	.10	9.1	110	.14	84	.100	.010
APR										
24...	120	20	4.4	.40	9.7	160	.22	294	.000	.050
JUN										
05...	27	2.1	1.0	.10	4.2	36	.05	337	.300	.000

09205490 NORTH PINEY CREEK ABOVE APPERSON CREEK, NEAR MASON, WY

LOCATION.--Lat 42°39'40", long 110°29'30", in NW¼SE¼NW¼ sec.24, T.31 N., R.115 W., Sublette County, Hydrologic Unit 14040101, Bridger National Forest, on left bank 250 ft downstream from Forest Service bridge, 800 ft upstream from Apperson Creek, and 21 miles northwest of Big Piney.

DRAINAGE AREA.--29.6 mi².

PERIOD OF RECORD.--October 1982 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,090 ft, from topographic map.

REMARKS.--Records good except those for December to March, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s, June 24, 1983, date revised, gage height, 3.68 ft; minimum daily, 11 ft³/s, Apr. 15-17, Dec. 11, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 417 ft³/s, June 26, gage height, 3.03 ft; minimum daily, 11 ft³/s, Dec. 23.

REVISIONS.--The date of the maximum discharge for the 1983 water year has been revised to June 24, superseding the date published in the report for 1983.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	27	23	14	17	14	13	14	254	344	94	35
2	33	27	24	14	16	14	12	14	220	310	87	35
3	33	27	23	14	16	14	12	14	212	297	83	34
4	31	27	22	14	16	14	12	16	189	291	80	33
5	31	27	20	14	16	14	13	16	176	276	77	34
6	31	27	20	14	16	14	12	15	161	257	72	37
7	30	29	22	13	15	14	13	14	147	248	69	36
8	30	27	22	13	15	14	12	16	137	252	67	36
9	33	24	25	14	15	14	13	21	127	239	65	32
10	38	26	25	14	16	13	13	25	124	216	62	33
11	35	26	24	15	16	13	13	31	123	198	60	37
12	32	26	23	15	15	13	13	43	119	186	60	51
13	31	25	19	15	15	13	12	55	122	177	58	40
14	31	26	22	15	15	14	13	70	140	169	56	39
15	31	25	22	15	15	13	13	87	184	160	55	38
16	30	25	18	14	15	13	15	101	242	149	55	37
17	30	26	19	13	15	13	17	88	285	144	57	36
18	30	26	18	12	15	14	19	87	309	139	53	35
19	29	25	17	13	14	14	19	95	306	135	53	36
20	29	25	16	13	14	14	17	117	338	130	51	37
21	29	24	15	14	13	13	15	134	360	124	47	39
22	29	21	13	15	14	13	15	119	357	127	46	43
23	29	23	11	16	15	13	17	117	342	121	50	42
24	29	25	12	17	15	13	15	142	339	115	46	48
25	28	26	12	17	15	13	15	132	357	111	44	45
26	28	24	13	17	14	13	14	121	385	106	41	40
27	28	23	13	17	14	12	15	119	397	103	40	35
28	27	25	13	17	14	12	14	124	388	107	39	31
29	27	23	12	17	14	13	14	146	373	104	37	30
30	27	22	14	17	---	13	13	191	388	98	36	30
31	27	---	14	17	---	13	---	254	---	97	36	---
TOTAL	938	759	566	459	435	414	423	2538	7601	5530	1776	1114
MEAN	30.3	25.3	18.3	14.8	15.0	13.4	14.1	81.9	253	178	57.3	37.1
MAX	38	29	25	17	17	14	19	254	397	344	94	51
MIN	27	21	11	12	13	12	12	14	119	97	36	30
AC-FT	1860	1510	1120	910	863	821	839	5030	15080	10970	3520	2210

CAL YR 1983 TOTAL 25982 MEAN 71.2 MAX 541 MIN 11 AC-FT 51540
WTR YR 1984 TOTAL 22553 MEAN 61.6 MAX 397 MIN 11 AC-FT 44730

09208400 LA BARGE CREEK ABOVE VIOLA, WY

LOCATION.--Lat 42°17'38", long 110°26'24", in NE¼NW¼NW¼ sec.36, T.27 N., R.115 W., Sublette County, Hydrologic Unit 14040101, on left bank 1.1 mi upstream from Rock Creek, 3.7 mi northwest of Viola, and 12.2 mi west of La Barge.

DRAINAGE AREA.--122 mi^2.

PERIOD OF RECORD.--October 1982 to September 1984 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,270 ft, from topographic map.

REMARKS.--Records good except those for November to March and period of no gage-height record, May 16 to June 5, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 878 ft^3/s, May 29, 1984, gage height, 4.30 ft, from floodmark; maximum gage height, 7.74 ft, Feb. 7, 1983 (backwater from ice); minimum daily discharge, 21 ft^3/s, Dec. 23, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 878 ft^3/s, May 29, gage height, 4.30 ft, from floodmark; minimum daily, 21 ft^3/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	62	56	43	40	29	54	76	580	282	106	74
2	83	61	58	42	40	30	52	81	560	264	106	72
3	83	63	54	44	39	31	47	83	540	246	105	71
4	78	61	50	44	39	3C	48	79	520	237	103	69
5	75	62	50	44	38	30	52	85	500	226	103	68
6	72	64	50	44	39	30	56	77	477	215	101	79
7	71	67	52	41	40	30	56	76	448	205	96	76
8	71	67	56	41	40	31	52	86	412	201	101	75
9	71	55	60	43	38	32	52	119	380	192	99	70
10	85	63	60	45	37	31	51	171	362	192	96	68
11	79	64	58	44	36	32	49	225	359	181	93	75
12	73	62	56	43	33	31	44	333	329	167	93	113
13	71	60	54	42	33	30	49	397	336	158	90	77
14	73	60	54	41	35	33	50	435	363	157	89	70
15	73	57	54	40	33	34	55	515	390	150	90	68
16	70	64	45	38	33	36	66	580	415	146	91	67
17	69	64	42	35	34	38	79	470	425	141	91	65
18	68	61	40	32	32	40	100	470	424	134	86	64
19	65	66	38	35	31	42	109	580	400	133	87	62
20	65	61	34	38	30	45	99	660	398	133	94	62
21	65	58	30	39	28	50	85	740	385	133	84	80
22	64	50	25	40	30	49	82	640	374	133	82	74
23	64	54	21	40	32	49	97	640	361	133	82	79
24	67	58	27	41	33	51	92	780	345	127	82	83
25	63	65	32	43	32	51	92	680	333	122	80	77
26	64	57	38	44	30	53	84	640	327	121	80	76
27	61	54	39	42	30	49	76	660	316	118	76	76
28	62	60	38	42	30	50	75	720	303	113	76	74
29	61	56	35	41	30	50	77	840	297	113	73	70
30	61	52	39	40	---	50	72	660	297	111	72	70
31	62	---	44	39	---	50	---	620	---	106	74	---
TOTAL	2168	1808	1389	1270	995	1217	2052	13218	11956	5090	2781	2204
MEAN	69.9	60.3	44.8	41.0	34.3	39.3	68.4	426	399	164	89.7	73.5
MAX	85	67	60	45	40	53	109	840	580	282	106	113
MIN	61	50	21	32	28	29	44	76	297	106	72	62
AC-FT	4300	3590	2760	2520	1970	2410	4070	26220	23710	10100	5520	4370

CAL YR 1983 TOTAL 47780 MEAN 131 MAX 770 MIN 21 AC-FT 94770
WTR YR 1984 TOTAL 46148 MEAN 126 MAX 840 MIN 21 AC-FT 91530

09209400 GREEN RIVER NEAR LA BARGE, WY

LOCATION.--Lat 42°11'34", long 110°09'45", in SE¼SE¼NW¼ sec.33, T.26 N., R.112 W., Lincoln County, Hydrologic Unit 14040101, on right bank 1.7 mi upstream from high-water line of Fontenelle Reservoir at elevation 6,513 ft, 4.0 mi upstream from Muddy Creek, and 5.0 mi south of La Barge.

DRAINAGE AREA.--3,910 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year. Records are equivalent to those published August 1946 to March 1965 as Green River near Fontenelle (sta 09209500).

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 198,000 acres above station.

AVERAGE DISCHARGE.--38 years (water years 1947-84), 1,669 ft^3/s, 1,209,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s, June 11, 1972, gage height, 10.34 ft; minimum daily, 188 ft^3/s, May 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,670 ft^3/s, June 2, gage height, 8.00 ft; minimum daily, 390 ft^3/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	1340	960	660	620	660	1100	1650	5770	6980	4110	1300
2	1800	1360	980	600	660	680	1200	1640	6980	7300	4090	1250
3	1910	1390	1000	620	700	680	1100	1740	7390	7080	3920	1210
4	1980	1350	1000	660	700	660	1200	1820	6930	6310	3500	1180
5	1950	1330	1000	680	660	580	1200	1760	6350	5650	3140	1110
6	1940	1270	980	680	620	600	1300	1760	5950	5240	2930	1080
7	1910	1330	1000	680	640	620	1400	1640	5570	4940	2680	1080
8	1880	1400	1100	660	660	640	1300	1470	4940	4770	2480	1080
9	1850	1400	1100	660	640	660	1400	1430	4240	4950	2270	1130
10	1900	1300	1100	640	620	680	1400	1620	3640	5100	2130	1130
11	1930	1260	1100	640	680	700	1300	1990	3410	5230	2030	1120
12	1990	1320	1100	620	740	700	1300	2080	3580	4850	1950	1530
13	1970	1350	1050	620	740	700	1300	2120	3380	4260	1890	1530
14	1930	1490	1050	600	700	700	1400	2520	3040	4120	1820	1420
15	1930	1440	1000	600	660	700	1600	3050	3060	3740	1750	1310
16	1920	1490	1000	600	720	680	1860	3800	3470	3460	1770	1260
17	1870	1420	1000	500	720	660	2120	4920	4160	3350	1820	1210
18	1810	1520	960	450	640	660	2430	4630	4900	3120	1920	1140
19	1760	1450	900	410	580	700	2800	4170	5590	2960	2020	1090
20	1710	1420	800	390	540	780	2990	4280	5760	2900	1990	1080
21	1660	1490	640	400	540	880	2640	4850	5900	3040	1900	1080
22	1630	1230	540	470	560	880	2380	5450	6290	3350	1810	1090
23	1590	1100	500	600	580	800	2360	5310	6510	4220	1670	1310
24	1560	1200	580	620	640	900	2420	5000	6660	4700	1610	1720
25	1560	1200	600	680	660	960	2350	5870	6630	4660	1550	2210
26	1500	1200	660	700	660	960	2270	5760	6490	4470	1540	2000
27	1450	1000	660	680	620	960	1950	4620	6460	4140	1580	1940
28	1420	1100	640	680	620	1000	1700	4080	6570	3860	1610	1950
29	1390	1100	590	680	620	1100	1760	3830	6550	3830	1520	1650
30	1360	940	600	640	---	1100	1720	3850	6330	3770	1420	1600
31	1340	---	660	620	---	1100	---	4450	---	3620	1330	---
TOTAL	54150	39190	26850	18740	18740	24080	53250	103160	162500	139970	67750	40790
MEAN	1747	1306	866	605	646	777	1775	3328	5417	4515	2185	1360
MAX	1990	1520	1100	700	740	1100	2990	5870	7390	7300	4110	2210
MIN	1340	940	500	390	540	580	1100	1430	3040	2900	1330	1080
AC-FT	107400	77730	53260	37170	37170	47760	105600	204600	322300	277600	134400	80910

CAL YR 1983 TOTAL 907699 MEAN 2487 MAX 11100 MIN 430 AC-FT 1800000
WTR YR 1984 TOTAL 749170 MEAN 2047 MAX 7390 MIN 390 AC-FT 1486000

09209400 GREEN RIVER NEAR LA BARGE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to September 1976.
WATER TEMPERATURES: October 1963 to September 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 25...	1330	1510	300	6.0	140	39	10	11	.4	1.0
JAN 05...	1520	629	426	.0	170	46	14	22	.8	1.5
APR 16...	1245	1870	587	6.0	230	56	22	36	1	1.7
JUN 04...	1745	7190	244	11.5	110	32	8.3	5.5	.2	.60

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	120	40	4.0	.10	4.9	180	.25	742	.00	.300
JAN 05...	160	63	4.2	.20	9.4	260	.35	435	.10	.000
APR 16...	190	110	8.4	.20	8.0	360	.48	1800	.30	.130
JUN 04...	100	23	1.8	.10	5.2	140	.19	2650	1.2	.010

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUL 27...	1700	<.01	<.01	<.01	<.01	<.010	<.010
SEP 12...	1230	.06	<.01	<.01	<.01	<.010	<.010

09210500 FONTENELLE CREEK NEAR HERSCHLER RANCH, NEAR FONTENELLE, WY

LOCATION.--Lat 42°05'46", long 110°24'57", in NW¼SW¼NE¼ sec.2, T.24 N., R.115 W., Lincoln County, Hydrologic Unit 14040101, on left bank 2.0 mi downstream from Dutch George Creek and 14 mi west of Fontenelle.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,950 ft, from topographic map. Prior to May 5, 1970, at site 300 ft downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 780 acres above station.

AVERAGE DISCHARGE.--33 years, 74.8 ft³/s, 54,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 821 ft³/s, June 13, 1965, gage height, 6.87 ft, site then in use; maximum gage height, 9.20 ft, May 27, 1983; minimum daily discharge, 8.8 ft³/s, Aug. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 23	2230	172	6.40	May 21	0730	547	8.21
May 5	0200	180	6.45	June 1	1630	577	8.34
May 12	2400	*741	*8.95				

Minimum daily discharge, 26 ft³/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	41	39	42	40	33	39	87	560	229	82	44
2	60	41	40	41	41	30	38	95	510	207	77	44
3	60	40	42	43	41	31	38	131	483	192	74	44
4	58	39	44	44	39	30	39	139	460	182	70	43
5	56	39	48	45	38	30	40	154	464	172	77	42
6	52	42	52	44	39	31	42	118	438	161	69	48
7	47	41	49	43	38	33	45	105	431	154	62	48
8	45	45	49	42	37	36	52	136	375	146	63	47
9	50	38	48	41	35	36	52	227	342	140	63	44
10	56	38	47	40	36	38	52	350	320	140	61	42
11	50	43	46	39	37	38	50	404	312	130	60	52
12	45	42	45	38	38	38	52	518	290	120	61	74
13	45	41	44	38	36	37	48	625	281	116	59	51
14	45	39	43	38	34	36	57	589	287	112	58	46
15	46	40	42	37	32	36	60	629	306	109	60	44
16	44	38	38	37	34	36	77	601	330	105	62	44
17	44	39	36	34	34	36	95	415	340	101	62	43
18	43	40	33	31	32	36	119	385	343	96	56	43
19	43	39	31	32	30	37	127	399	338	92	55	43
20	42	39	29	33	29	37	115	437	332	93	64	43
21	42	39	28	34	28	39	92	513	320	105	55	47
22	42	39	27	37	29	40	95	429	310	115	53	51
23	42	38	26	39	32	41	135	402	294	109	52	49
24	42	38	27	41	34	40	145	463	286	93	52	60
25	41	40	30	41	34	40	140	456	274	88	50	51
26	41	40	35	41	33	38	112	402	269	86	51	48
27	40	39	40	41	32	39	89	390	258	85	47	48
28	40	39	38	41	33	38	81	375	246	82	47	45
29	40	39	37	41	35	38	86	380	233	84	46	44
30	39	38	40	40	---	38	77	407	237	83	44	44
31	40	---	43	39	---	38	---	474	---	80	44	---
TOTAL	1438	1193	1216	1217	1010	1124	2289	11235	10269	3807	1836	1416
MEAN	46.4	39.8	39.2	39.3	34.8	36.3	76.3	362	342	123	59.2	47.2
MAX	60	45	52	45	41	41	145	629	560	229	82	74
MIN	39	38	26	31	28	30	38	87	233	80	44	42
AC-FT	2850	2370	2410	2410	2000	2230	4540	22280	20370	7550	3640	2810

CAL YR 1983 TOTAL 47022 MEAN 129 MAX 756 MIN 26 AC-FT 93270
WTR YR 1984 TOTAL 38050 MEAN 104 MAX 629 MIN 26 AC-FT 75470

09211150 FONTENELLE RESERVOIR NEAR FONTENELLE, WY

LOCATION.--Lat 42°02'00", long 110°04'00", in S½ sec.25, T.24 N., R.112 W., Lincoln County, Hydrologic Unit 14040101, at dam on Green River, 3.0 mi north of Fontenelle, and 3.5 mi upstream from Slate Creek.

DRAINAGE AREA.--4,280 mi^2, approximately.

PERIOD OF RECORD.--October 1964 to current year.

REVISED RECORDS.--WSP 2125: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam completed by Bureau of Reclamation in April 1964. Capacity, 344,800 acre-ft between elevations 6,506.0 ft, crest of spillway, and 6,408.0 ft, invert of outlet pipe. Dead storage, below elevation 6,408.0 ft, 563 acre-ft. Figures given herein represent total contents. Water used for irrigation and power development.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 387,000 acre-ft, June 29, 1965, elevation, 6,511.01 ft; minimum daily, 5,680 acre-ft, July 28, 1967, elevation, 6,423.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 194,800 acre-ft, July 26, elevation, 6,484.89 ft; minimum daily, 135,100 acre-ft, May 30, elevation, 6,473.68 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,481.97	177,600	-
Oct. 31	6,481.31	173,900	-3,700
Nov. 30	6,477.33	152,800	-21,100
Dec. 31	6,478.65	159,600	+6,800
CAL YR 1983	-	-	-103,100
Jan. 31	6,479.60	164,600	+5,000
Feb. 29	6,479.21	162,500	-2,100
Mar. 31	6,480.16	167,600	+5,100
Apr. 30	6,477.12	151,700	-15,900
May 31	6,474.38	138,400	-13,300
June 30	6,481.67	175,900	+37,500
July 31	6,484.43	192,000	+16,100
Aug. 31	6,482.75	182,100	-9,900
Sept. 30	6,482.74	182,000	-100
WTR YR 1984	-	-	+4,400

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY

LOCATION.--Lat 42°01'16", long 110°02'57", in NW¼NW¼NE¼ sec.31, T.24 N., R.111 W., Sweetwater County, Hydrologic Unit 14040103, on right bank 1.0 mi downstream from Fontenelle Dam, 2.5 mi upstream from Slate Creek, and 6.0 mi southeast of Fontenelle.

DRAINAGE AREA.--4,280 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1963 to current year.

REVISED RECORDS.--WSP 2125: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,378.13 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for November and December, which are poor. Flow completely regulated by Fontenelle Reservoir 1.0 mi upstream. (See sta 09211150.) Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 202,000 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s, Sept. 5, 1965, gage height, 18.74 ft, from floodmarks, caused by emergency release from Fontenelle Reservoir; minimum daily discharge, 209 ft³/s, Nov. 22-24, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,760 ft³/s, July 2, gage height, 15.35 ft; minimum daily, 530 ft³/s, Dec. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	989	1600	1000	716	714	731	731	3540	3980	7280	4360	1530
2	1580	1600	900	714	714	723	886	3240	4020	7560	4350	1530
3	1580	1600	840	717	714	714	969	2730	4570	7740	4350	1540
4	1580	1600	840	723	714	723	969	2640	5260	7650	4350	1540
5	1580	1600	840	723	714	731	1100	2410	5280	7500	4350	1540
6	1580	1600	840	723	714	731	1180	2060	5320	6670	4090	1540
7	1580	1600	840	723	714	731	1180	1960	5370	5940	3660	1540
8	1580	1600	840	723	714	723	1180	1960	5490	5560	3200	1540
9	1590	1600	840	723	714	723	1340	1960	5550	4190	2740	1540
10	1600	1600	840	723	714	723	1580	1960	5570	3680	2290	1640
11	1600	1600	840	723	714	723	1690	1960	5520	3670	2040	1750
12	1730	1600	660	732	722	723	1690	1960	5160	3670	2020	1730
13	1900	1600	540	734	723	723	1710	1960	4930	3650	1870	1180
14	1900	1600	530	731	723	723	1710	2180	4950	3650	1020	877
15	1910	1600	540	726	723	723	1720	2770	5040	3650	1580	785
16	1910	1600	600	712	723	723	1750	3210	5080	3650	1760	846
17	1910	1600	730	714	723	723	1720	3460	5120	3630	1760	1710
18	1900	1600	730	714	725	723	1730	4480	5140	3440	1750	1670
19	1900	1600	730	712	731	723	1880	5120	5140	3210	1750	1560
20	1900	1600	730	569	731	723	2400	5240	5140	2980	1750	1250
21	1900	1600	730	707	731	723	2920	5700	5000	2810	1750	863
22	1890	1600	731	714	731	723	3020	6540	4830	2790	1750	580
23	1800	1500	731	714	731	723	3140	7050	4880	2780	1750	580
24	1580	1400	731	714	731	723	3310	7220	5300	2810	1750	827
25	1580	1400	731	714	722	723	3310	7150	6790	2790	1750	1250
26	1580	1400	723	704	714	723	3500	7350	7340	2950	1750	1400
27	1600	1400	731	713	714	723	3610	7540	7360	3880	1750	1450
28	1600	1250	731	714	717	736	3580	7110	7370	4350	1750	1540
29	1600	1100	731	714	724	740	3580	6210	7370	4370	1750	1760
30	1700	1000	731	714	---	737	3550	5620	7360	4370	1750	1760
31	1600	---	727	714	---	731	---	4580	---	4370	1660	---
TOTAL	52229	45650	23278	22111	20893	22488	62635	128870	165230	137240	74200	40848
MEAN	1685	1522	751	713	720	725	2088	4157	5508	4427	2394	1362
MAX	1910	1600	1000	734	731	740	3610	7540	7370	7740	4360	1760
MIN	989	1000	530	569	714	714	731	1960	3980	2780	1020	580
AC-FT	103600	90550	46170	43860	41440	44600	124200	255600	327700	272200	147200	81020

CAL YR 1983 TOTAL 984761 MEAN 2698 MAX 12000 MIN 530 AC-FT 1953000
WTR YR 1984 TOTAL 795672 MEAN 2174 MAX 7740 MIN 530 AC-FT 1578000

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1976.
WATER TEMPERATURES: October 1967 to September 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 26...	1100	1540	321	10.0	140	37	12	12	.5	.80
DEC 07...	1400	864	402	3.5	160	42	14	24	.8	1.1
JAN 16...	1330	693	545	3.0	230	62	19	29	.9	1.7
MAR 01...	1300	754	507	.0	230	61	19	25	.7	.90
APR 16...	1515	1750	497	5.0	220	56	19	24	.7	1.2
JUN 04...	1200	5190	315	13.0	150	40	11	12	.4	.40
JUL 09...	1350	3850	265	18.0	94	21	10	11	.5	1.2
AUG 17...	1300	1750	347	20.5	160	42	13	19	.7	1.3
SEP 12...	1500	1740	360	17.5	150	40	13	18	.7	.00

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 26...	120	46	4.0	.30	5.6	190	.26	789	.00	.000
DEC 07...	150	59	4.0	.10	9.8	240	.33	569	.50	.020
JAN 16...	160	120	6.8	.30	7.8	340	.47	641	.80	.000
MAR 01...	170	93	6.0	.20	8.1	320	.43	642	.20	.040
APR 16...	180	86	5.9	.10	8.1	310	.42	1460	.20	.030
JUN 04...	120	39	8.7	.10	5.5	190	.26	2640	.30	.010
JUL 09...	110	31	2.2	.10	8.1	150	.20	1570	.00	.000
AUG 17...	140	48	3.2	.30	6.3	220	.30	1030	.20	.020
SEP 12...	130	59	4.0	.00	11	220	.30	1050	.00	.000

09212500 BIG SANDY RIVER AT LECKIE RANCH, NEAR BIG SANDY, WY

LOCATION.--Lat 42°34'17", long 109°16'58", in sec.17, T.30 N., R.104 W., Sublette County, Hydrologic Unit 14040104, on left bank at Leckie Ranch, 0.1 mi downstream from Squaw Creek, and 10.1 mi southeast of Big Sandy.

DRAINAGE AREA.--94 mi^2.

PERIOD OF RECORD.--July to November 1910, May to August 1911, July 1939 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313. Published as Big Sandy Creek near Big Sandy 1910-11 and in WSP 618, and as Big Sandy Creek at Leckie Ranch, near Big Sandy July 1939 to October 1968.

REVISED RECORDS.--WSP 2125: 1963, 1964(P), 1965.

GAGE.--Water-stage recorder. Altitude of gage is 7,800 ft, by barometer. See WSP 1733 for history of changes prior to July 24, 1939. July 24, 1939, to June 1, 1961, water-stage recorder at site 75 ft downstream at present datum.

REMARKS.--Records good except those for March and April, which are poor. Diversions for irrigation of about 750 acres above station. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Oct. 6 . . 68.9

AVERAGE DISCHARGE.--32 years (water years 1940-71), 86.0 ft^3/s, 62,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft^3/s, June 10, 1965, gage height, 9.06 ft, from rating curve extended above 1,000 ft^3/s; minimum daily, 3.0 ft^3/s, Dec. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 21	0230	681	6.81	June 1	0400	*913	*7.43
May 24	1200	724	6.93	June 16	0630	657	6.74

Minimum daily discharge during period of operation, 18 ft^3/s, Mar. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						18	20	28	747	420	134	42
2						20	20	28	503	349	133	39
3						21	20	28	523	320	118	39
4						21	20	28	433	300	102	35
5						21	21	28	461	291	91	33
6						20	22	27	385	262	82	49
7						19	23	26	335	246	72	66
8						19	25	28	279	258	65	47
9						19	25	40	232	265	58	43
10						19	24	65	211	257	51	39
11						20	24	73	257	216	48	44
12						20	24	119	224	187	48	149
13						20	25	161	234	175	49	121
14						20	25	189	366	180	46	94
15						20	27	264	521	158	48	77
16						19	33	365	577	144	53	68
17						19	40	339	525	135	55	64
18						19	50	373	502	126	52	57
19						20	47	451	498	119	52	52
20						21	42	555	525	117	60	52
21						21	38	594	531	119	50	82
22						21	35	393	549	161	45	98
23						21	33	450	490	172	47	121
24						21	31	671	467	208	58	144
25						21	30	437	482	168	53	118
26						21	29	308	448	153	72	110
27						20	28	315	453	135	60	97
28						20	27	354	463	140	53	85
29						20	27	465	429	123	47	76
30						20	27	634	464	112	42	72
31						20	---	783	---	110	41	---
TOTAL						621	862	8619	13114	6127	1985	2213
MEAN						20.0	28.7	278	437	198	64.0	73.8
MAX						21	50	783	747	420	134	149
MIN						18	20	26	211	110	41	33
AC-FT						1230	1710	17100	26010	12150	3940	4390

09213500 BIG SANDY RIVER NEAR FARSON, WY

LOCATION.--Lat 42°19'01", long 109°29'06", in NW¼SE¼NW¼ sec.17, T.27 N., R.106 W., Sublette County, Hydrologic Unit 14040104, on left upstream side of Eden Canal diversion, about 1.0 mi upstream from high-water line of Big Sandy Reservoir, 14.5 mi north of Farson, and 24.5 mi upstream from Little Sandy Creek.

DRAINAGE AREA.--322 mi^2.

PERIOD OF RECORD.--October 1914 to September 1917, October 1920 to October 1924, October 1926 to September 1934, April 1953 to current year (no winter records since 1971). Prior to October 1968, published as Big Sandy Creek near Farson. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1733: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,770 ft, from topographic map. Prior to Apr. 28, 1921, nonrecording gage, and Apr. 28, 1921, to Aug. 3, 1934, water-stage recorder at site 0.5 mi upstream at different datum. Apr. 17, 1953, to Nov. 11, 1954, water-stage recorder at site 1.5 mi upstream at different datum.

REMARKS.--Records good except those for April and period of no gage-height record, June 1-14, which are poor. Diversions for irrigation of about 1,000 acres above station. The Eden Canal, which bypasses the station, has not been used since station was established at present site in November 1954. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation are given below:

Oct. 3 . .	82.5
Mar. 28 . .	23.7

AVERAGE DISCHARGE.--33 years (water years 1915-17, 1921-24, 1927-34, 1954-71), 86.5 ft^3/s, 62,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft^3/s, June 9, 1972, gage height, 8.10 ft; no flow Jan. 27-31, 1963, and may have also reached no flow in previous years during periods of ice effect.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 25	1030	586	6.70	June 17	0330	540	6.56
June 1	0830	*656	*6.88				

Minimum daily discharge during period of operation, 24 ft^3/s, Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							24	39	650	445	132	45
2							25	43	620	385	150	43
3							25	44	450	326	130	43
4							25	43	450	297	113	40
5							27	40	400	276	99	39
6							30	41	400	262	90	40
7							35	40	350	234	83	48
8							40	38	300	218	74	58
9							50	38	250	234	66	57
10							55	50	230	253	59	48
11							51	91	200	235	54	46
12							52	80	190	201	51	69
13							54	91	200	176	49	104
14							56	149	200	171	49	124
15							60	173	317	165	52	99
16							70	240	450	148	52	87
17							100	331	471	137	55	75
18							150	308	438	127	55	66
19							199	335	433	118	57	60
20							122	400	435	115	54	55
21							95	479	451	113	55	85
22							72	476	453	117	56	79
23							66	363	467	147	51	92
24							65	408	425	215	58	96
25							60	528	410	198	63	127
26							60	370	425	164	60	112
27							45	281	396	147	62	103
28							43	282	400	144	67	95
29							45	320	404	130	58	86
30							41	408	385	118	51	78
31							---	517	---	109	48	---
TOTAL							1842	7046	11650	6125	2153	2199
MEAN							61.4	227	388	198	69.5	73.3
MAX							199	528	650	445	150	127
MIN							24	38	190	109	48	39
AC-FT							3650	13980	23110	12150	4270	4360

09213705 BIG SANDY RIVER BELOW BIG SANDY RESERVOIR, WY

LOCATION.--Lat 42°14'30", long 109°24'42", in SW¼NE¼NW¼ sec.11, T.26 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, at spillway of Big Sandy Reservoir, 2.1 mi east of U.S. Highway 187 on county road, 2.9 mi upstream from west lateral of Means Canal, and 9.9 mi north of Farson.

PERIOD OF RECORD.--June 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
03...	1430	2.0	1190	11.0	270	72	22	180	5	1.4
FEB										
23...	1415	32	282	5.0	77	23	4.7	26	1	.90
MAY										
10...	1430	262	183	6.0	60	19	3.0	16	.9	.00
JUL										
31...	1350	2.0	1130	20.0	220	57	20	170	5	1.6

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
03...	144	490	17	.70	8.5	880	1.2	4.7	<.100	.010
FEB										
23...	67	64	3.2	.20	7.7	170	.23	15	.100	.050
MAY										
10...	49	34	3.6	.10	8.4	110	.15	80	.200	.040
JUL										
31...	150	400	11	.60	7.3	760	1.0	4.1	.000	.000

09213800 BIG SANDY RIVER AT FARSON, WY

LOCATION.--Lat 42°05'58", long 109°27'05", in NE¼SW¼NW¼ sec.34, T.25 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, 0.3 mi southwest of Eden Valley Cemetery, 0.6 mi south of Farson, and 0.7 mi upstream from mouth of Little Sandy Creek.

PERIOD OF RECORD.--June 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
03...	1145	21	1980	10.0	670	180	54	210	4	3.4
FEB										
22...	1225	28	769	.0	250	68	19	74	2	1.6
JUN										
01...	1240	31	1400	13.5	480	130	38	150	3	2.7
JUL										
31...	1520	21	1680	21.0	590	160	47	170	3	2.6

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
03...	236	820	32	.70	13	1500	2.0	82	.540	.010
FEB										
22...	97	290	7.9	.40	8.5	530	.72	40	.300	.030
JUN										
01...	180	560	28	.40	12	1000	1.4	86	.300	.060
JUL										
31...	220	630	10	.60	13	1200	1.6	66	.700	.000

09215500 LITTLE SANDY CREEK AT FARSON, WY

LOCATION.--Lat 42°05'52", long 109°27'01", in SW¼SW¼NW¼ sec.34, T.25 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, 0.4 mi upstream from mouth, 0.6 mi south of Eden Valley Cemetery, and 0.7 mi south of Farson.

PERIOD OF RECORD.--June 1981 to current year.

REMARKS.--No flow observed Feb. 22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 03...	1000	13	2900	7.0	540	120	59	510	10	4.1
JUN 01...	1330	33	2420	15.0	530	120	57	410	8	4.0
JUL 31...	1600	28	2050	21.5	450	110	42	320	7	3.4

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 03...	269	1300	73	1.3	8.3	2200	3.0	79	<.10	.020
JUN 01...	230	1100	53	.60	11	1900	2.6	169	.40	.100
JUL 31...	210	860	48	.70	11	1500	2.1	115	.10	.060

09215550 BIG SANDY RIVER BELOW FARSON, WY

LOCATION.--Lat 42°04'24", long 109°28'43", in SW¼SE¼NE¼ sec.12, T.24 N., R.107 W., Sweetwater County, Hydrologic Unit 14040104, on left bank 2.7 mi northwest of Eden, 3.0 mi southwest of Farson, and 3.8 mi downstream from Little Sandy Creek.

DRAINAGE AREA.--1,097 mi², of which 14.9 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft, from topographic map

REMARKS.--Records good except those for November to April, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 19,300 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s, June 14, 1983, gage height, 7.27 ft; minimum daily, 6.7 ft³/s, Feb. 6, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 833 ft³/s, Aug. 1, gage height, 6.05 ft; minimum daily, 19 ft³/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	276	45	32	32	35	65	55	49	83	489	56
2	39	271	45	30	32	40	65	56	51	84	214	56
3	36	272	45	32	32	45	68	67	61	68	105	59
4	34	267	45	35	34	42	68	85	71	53	70	59
5	33	268	45	35	32	38	72	113	73	56	60	60
6	32	270	45	35	32	38	78	91	68	69	54	72
7	31	267	48	35	32	40	75	76	65	69	48	65
8	31	80	52	33	34	45	75	56	60	72	44	57
9	30	44	52	32	32	50	80	253	58	79	48	58
10	33	37	52	31	32	55	74	299	53	88	51	56
11	32	35	52	30	35	55	68	333	63	70	45	66
12	30	51	50	30	35	55	64	335	58	61	48	77
13	30	65	50	30	35	55	62	328	48	66	45	67
14	32	64	47	29	34	55	60	333	49	82	45	65
15	33	64	45	29	32	55	68	279	48	79	62	54
16	32	69	43	28	32	54	116	248	42	83	69	46
17	32	67	41	27	35	52	175	212	50	76	73	44
18	30	65	40	25	35	50	280	183	56	66	68	43
19	30	62	35	20	30	55	418	131	67	57	68	42
20	29	60	30	19	28	60	386	121	63	67	75	43
21	29	56	25	20	28	60	214	115	64	76	68	46
22	29	52	23	23	28	60	129	66	64	120	67	45
23	29	50	23	30	30	60	131	55	63	202	69	44
24	29	50	25	33	35	66	154	51	62	110	73	46
25	29	54	28	36	40	70	158	43	68	68	58	47
26	29	52	30	38	35	70	154	38	70	54	56	48
27	28	50	32	35	35	68	101	34	68	48	55	52
28	28	48	30	35	35	67	67	36	66	49	55	52
29	172	48	28	35	35	66	56	38	61	47	54	46
30	273	45	30	32	---	66	52	43	66	47	55	46
31	276	---	33	32	---	65	---	45	---	55	55	---
TOTAL	1594	3159	1214	946	956	1692	3633	4218	1805	2304	2446	1617
MEAN	51.4	105	39.2	30.5	33.0	54.6	121	136	60.2	74.3	78.9	53.9
MAX	276	276	52	38	40	70	418	335	73	202	489	77
MIN	28	35	23	19	28	35	52	34	42	47	44	42
AC-FT	3160	6270	2410	1880	1900	3360	7210	8370	3580	4570	4850	3210

CAL YR 1983 TOTAL 37873.3 MEAN 104 MAX 795 MIN 6.7 AC-FT 75120
WTR YR 1984 TOTAL 25584.0 MEAN 69.9 MAX 489 MIN 19 AC-FT 50750

09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1981 to current year.
WATER TEMPERATURES: December 1981 to current year.

INSTRUMENTATION.--Specific conductance and water temperature monitor.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily mean, 4,580 micromhos, Dec. 1, 1981; minimum daily mean, 410 micromhos, May 11, 1984.
WATER TEMPERATURES: Maximum, 27.0°C, Aug. 5, 7, 1983; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily mean, 2,660 micromhos, Oct. 25; minimum daily mean, 410 micromhos, May 11.
WATER TEMPERATURES: Maximum, 25.5°C, Aug. 9, 10; minimum, 0.0°C, on many days in November, December, January, February, March, and April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 05...	1015	33	2320	7.0	700	180	62	310	5	3.4
NOV 22...	1500	54	1520	.0	430	110	38	200	4	1.8
JAN 04...	1100	35	1110	.0	350	96	27	120	3	1.8
FEB 22...	1025	28	738	.0	240	67	18	76	2	1.4
APR 12...	1230	58	2100	2.5	540	130	53	290	6	2.9
MAY 09...	1600	288	605	10.5	150	37	13	70	3	1.8
JUN 21...	1410	67	1610	14.0	410	100	38	220	5	2.9
JUL 31...	1200	45	1820	18.0	540	140	46	240	5	2.9
AUG 10...	1245	52	1900	18.5	510	130	44	250	5	3.4
SEP 13...	1215	61	1770	10.5	510	130	45	230	5	2.6

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 05...	245	1100	47	.80	10	1900	2.5	166	.400	.010
NOV 22...	110	700	34	.40	12	1200	1.6	169	.400	.010
JAN 04...	120	460	17	.30	9.4	800	1.1	76	.300	.010
FEB 22...	97	280	8.7	.20	8.9	520	.71	39	.300	.020
APR 12...	220	900	48	.60	9.7	1600	2.1	245	.200	.080
MAY 09...	92	190	11	.20	9.1	390	.53	301	.000	.070
JUN 21...	180	620	34	.60	8.9	1100	1.5	205	.100	.030
JUL 31...	220	740	39	.70	12	1400	1.8	164	2.20	.020
AUG 10...	230	760	43	.60	11	1400	1.9	194	.300	.020
SEP 13...	200	720	36	.50	13	1300	1.8	214	.500	.010

09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2380	504	1460	1020	746	698	1480	2150	1590	1580	687	1500
2	2420	479	1410	1020	728	692	1500	2190	1610	1490	854	1210
3	2440	452	1410	1010	728	695	1530	2000	1620	1610	1250	967
4	2410	447	1390	1020	711	694	1520	1770	1610	1880	1420	1170
5	2450	469	1410	1010	712	694	1510	1540	1610	2010	1590	1250
6	2470	461	1450	1010	712	706	1560	1310	1760	1960	1420	1320
7	2490	446	1390	1020	706	701	1590	1070	1880	1950	1430	1610
8	2480	809	1310	1020	703	695	1620	879	1970	2120	1890	1730
9	2490	1330	1350	1020	700	751	1650	638	1770	2090	2160	1730
10	2470	1570	1320	1040	706	1000	1640	456	1760	1760	1930	1550
11	2510	1740	1350	1000	693	1220	1720	410	1820	1660	2040	1360
12	2510	1670	1340	1000	701	1340	1830	414	1820	1750	1930	1570
13	2490	1240	1380	1010	692	1430	1870	463	1960	1830	1880	1780
14	2450	1140	1370	1060	686	1450	1920	508	1970	1620	1930	1720
15	2460	1040	1160	1160	692	1450	1940	550	1880	1590	1660	1830
16	2420	1040	1160	1020	712	1470	1880	602	1910	1640	1530	2040
17	2430	1150	1170	962	698	1470	1730	632	1830	1640	1430	2120
18	2390	1150	1170	991	688	1500	1560	680	1740	1710	1470	2160
19	2370	1180	1150	928	696	1520	1460	760	1580	1810	1560	2180
20	2480	1180	1120	876	717	1580	1360	848	1540	1930	1430	2220
21	2480	1280	1120	837	711	1490	1350	933	1480	1990	1400	2260
22	2540	1410	1060	810	706	1470	1420	1040	1520	1980	1360	2290
23	2570	1280	1060	786	689	1440	1540	1190	1430	2020	1390	2310
24	2600	1180	1040	777	700	1400	1580	1250	1450	1630	1410	2300
25	2660	1140	1020	768	688	1380	1600	1300	1400	1540	1610	2320
26	2650	1160	995	762	684	1390	1610	1400	1350	1710	1750	2330
27	2420	1230	1010	759	699	1390	1640	1450	1350	1770	1750	2110
28	2350	1230	1030	766	704	1400	1760	1540	1300	1760	1700	2100
29	1620	1410	1030	754	696	1420	1890	1560	1310	1770	1720	2110
30	881	1580	1020	743	---	1450	2050	1510	1350	1780	1380	2090
31	633	---	1020	742	---	1490	---	1520	---	1780	1410	---
MEAN	2340	1080	1220	926	704	1210	1640	1110	1640	1790	1560	1840
MAX	2660	1740	1460	1160	746	1580	2050	2190	1970	2120	2160	2330
MIN	633	446	995	742	684	692	1350	410	1300	1490	687	967

WTR YR 1984 MEAN 1420 MAX 2660 MIN 410

09216550 BIG SANDY RIVER BELOW FARSON, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	8.0	7.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0
2	12.0	6.5	7.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0
3	9.5	6.5	7.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0
4	12.5	4.0	7.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0
5	14.5	6.0	7.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0
6	14.0	6.0	7.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0
7	14.5	6.5	7.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0
8	14.5	6.5	5.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
9	13.0	6.5	3.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
10	12.5	7.5	4.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
11	12.0	5.5	3.5	2.0	.0	.0	.0	.0	.0	.0	.0	.0
12	12.0	4.0	3.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
13	12.5	5.0	3.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14	9.5	5.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15	7.5	4.0	2.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
16	10.0	2.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	10.5	3.0	3.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
18	7.5	3.5	2.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
19	8.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	9.5	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	10.0	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	10.0	2.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	8.5	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
24	9.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	8.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26	9.5	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
27	9.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
28	9.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
29	7.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
30	7.5	4.0	.0	.0	.0	.0	.0	.0	---	---	.0	.0
31	8.5	5.5	---	---	.0	.0	.0	.0	---	---	.0	.0
MONTH	14.5	.0	7.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.0	.0	10.0	3.5	16.5	9.5	18.5	14.5	18.5	13.0	18.5	10.0
2	.0	.0	8.5	4.0	15.5	9.0	19.0	15.0	22.5	16.5	18.5	8.5
3	.0	.0	9.0	2.5	15.0	12.0	19.5	15.0	22.5	15.0	19.0	9.0
4	.0	.0	8.0	3.0	12.5	9.5	19.5	14.5	22.0	15.0	19.0	10.5
5	.0	.0	9.0	4.5	14.0	10.0	20.0	15.0	20.0	14.0	18.0	11.0
6	.0	.0	6.5	3.0	11.0	8.0	20.0	15.5	23.5	13.5	15.5	12.0
7	.0	.0	9.0	1.5	14.5	7.5	19.5	16.0	24.0	14.0	13.5	8.0
8	.0	.0	12.0	3.0	12.0	8.0	18.5	15.5	24.5	12.5	16.5	7.5
9	.0	.0	10.5	5.0	14.0	7.0	17.5	14.5	25.5	13.5	18.0	9.0
10	.5	.0	9.5	5.5	12.5	8.5	19.0	13.5	25.5	14.5	18.0	10.0
11	2.0	.0	9.0	4.0	15.0	8.0	19.5	15.0	22.5	14.0	13.0	10.0
12	3.5	.0	13.0	6.0	19.0	9.5	19.0	14.5	25.0	15.0	17.0	10.5
13	6.5	.0	13.0	6.5	19.5	12.5	18.0	14.5	24.0	14.0	16.0	9.0
14	8.5	.0	12.5	8.0	21.5	13.5	19.0	13.5	22.5	15.0	17.0	8.5
15	11.0	.0	12.0	8.5	19.0	14.5	20.5	15.5	22.0	15.0	17.5	9.5
16	10.5	1.0	11.0	8.0	18.0	13.5	20.0	16.0	21.5	16.0	17.0	10.5
17	6.5	2.0	12.0	5.0	19.5	12.5	20.5	16.0	23.5	15.0	19.0	9.0
18	7.5	4.0	15.0	8.0	17.5	13.5	21.0	16.5	24.0	15.5	19.5	9.5
19	6.5	4.5	15.5	9.0	18.0	13.0	20.5	16.5	21.0	16.0	18.5	10.0
20	4.5	1.5	16.0	10.5	17.0	14.0	19.0	15.5	21.0	14.0	17.0	10.0
21	5.0	.5	13.5	10.5	19.0	13.0	20.5	16.5	21.5	11.5	12.5	7.5
22	8.0	2.5	16.0	7.5	18.5	13.5	20.0	16.5	22.0	13.0	13.5	4.0
23	7.5	3.5	16.5	9.0	20.0	12.5	19.0	16.0	18.5	14.0	13.5	8.5
24	8.0	2.5	14.0	10.5	20.0	14.0	22.0	17.0	21.5	12.0	8.5	5.5
25	6.0	3.0	12.5	7.0	19.0	15.0	21.5	17.5	18.0	13.0	12.0	2.5
26	3.5	1.0	15.0	7.5	19.0	13.5	21.5	15.5	20.5	10.5	13.0	3.0
27	4.5	.0	16.5	8.0	19.0	14.5	21.5	16.5	20.0	11.0	11.5	5.0
28	7.0	.5	17.5	8.5	21.0	14.5	22.5	16.5	20.0	11.5	10.0	1.0
29	7.0	1.5	20.0	11.0	20.5	16.0	22.0	18.0	20.0	10.5	12.0	2.5
30	8.5	1.5	18.0	12.0	18.5	15.5	21.0	16.5	21.0	10.5	13.0	3.5
31	---	---	16.5	12.5	---	---	20.0	16.5	18.0	12.5	---	---
MONTH	11.0	.0	20.0	1.5	21.5	7.0	22.5	13.5	25.5	10.5	19.5	1.0
YEAR	25.5	.0										

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY

LOCATION.--Lat 41°56'43", long 109°41'04", in NE¼SW¼NW¼ sec.29, T.23 N., R.108 W., Sweetwater County, Hydrologic Unit 14040104, on left bank 0.2 mi upstream from Gasson Bridge and 14.5 mi southwest of Eden.

DRAINAGE AREA.--1,720 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,350 ft, from topographic map.

REMARKS.--Records poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 19,300 acres above station.

AVERAGE DISCHARGE.--12 years, 80.6 ft^3/s, 58,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,430 ft^3/s, Apr. 24, 1980, gage height, 10.58 ft, from rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 13 ft^3/s, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft^3/s, Aug. 2, gage height, 7.04 ft; maximum gage height, 7.27 ft, Mar. 7; minimum daily discharge, 35 ft^3/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	327	62	60	55	64	89	89	94	134	362	100
2	105	331	62	56	55	70	90	94	99	145	541	107
3	104	330	62	63	55	75	86	102	106	115	164	112
4	96	331	62	65	58	72	86	113	125	90	113	116
5	89	340	62	65	55	68	99	126	129	80	94	118
6	86	341	62	65	55	66	117	129	135	80	89	115
7	86	347	62	65	55	70	115	129	126	84	83	124
8	87	244	66	62	58	80	114	111	119	87	77	112
9	90	118	70	60	55	90	130	169	122	109	74	98
10	97	96	70	58	55	95	136	365	115	122	77	96
11	95	77	70	56	60	95	116	452	121	120	78	108
12	92	77	70	56	60	95	101	481	118	93	75	127
13	81	99	70	56	60	95	103	466	105	103	76	128
14	87	103	70	54	60	95	98	484	109	108	76	117
15	89	99	68	54	56	95	104	438	112	126	84	109
16	90	98	66	52	58	94	124	380	107	115	95	93
17	90	101	64	50	60	90	167	335	98	130	102	89
18	87	101	62	45	60	90	294	292	107	105	108	88
19	80	95	60	40	55	95	506	243	108	94	106	84
20	85	92	55	35	50	100	629	191	105	95	109	76
21	79	84	48	38	50	100	395	188	106	109	111	77
22	78	76	42	45	50	100	223	163	105	128	106	78
23	80	71	43	50	50	100	180	133	112	227	102	76
24	75	70	47	55	57	105	193	116	112	255	109	76
25	78	70	52	60	64	114	194	111	108	176	104	75
26	80	74	55	65	60	126	208	103	121	161	95	75
27	78	70	58	60	60	116	162	95	121	119	92	75
28	77	66	55	60	60	101	120	88	123	99	91	77
29	99	66	52	60	60	96	104	87	116	105	92	78
30	252	66	57	55	---	91	93	86	116	99	89	74
31	364	---	62	55	---	84	---	91	---	102	91	---
TOTAL	3156	4460	1866	1720	1646	2827	5176	6450	3400	3715	3665	2878
MEAN	102	149	60.2	55.5	56.8	91.2	173	208	113	120	118	95.9
MAX	364	347	70	65	64	126	629	484	135	255	541	128
MIN	75	66	42	35	50	64	86	86	94	80	74	74
AC-FT	6260	8850	3700	3410	3260	5610	10270	12790	6740	7370	7270	5710

CAL YR 1983 TOTAL 54515 MEAN 149 MAX 1020 MIN 29 AC-FT 108100
WTR YR 1984 TOTAL 40959 MEAN 112 MAX 629 MIN 35 AC-FT 81240

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to current year.
WATER TEMPERATURES: October 1981 to current year.

INSTRUMENTATION.--Specific conductance and temperature monitor.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUTANCE: Maximum observed daily mean, 5,500 micromhos, Jan. 6, 1983; minimum daily mean, 610 micromhos, June 15, 1983.
WATER TEMPRATURES: Maximum, 27.5°C, Aug. 10, 1983; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum observed daily mean, 3,650 micromhos Oct. 28; minimum daily mean, 710 micromhos May 14.
WATER TEMPERATURES: Maximum, 25.5°C, July 16, 17, 18; minimum, 0.0°C many days in November, December, January, February, March, and April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 05...	1400	85	3210	14.0	1100	240	120	440	6	4.0
NOV 23...	1100	93	2820	.0	910	200	100	360	5	2.0
JAN 03...	1400	69	2930	.0	810	160	100	440	7	3.0
FEB 23...	1115	50	2860	.0	990	200	120	440	6	2.7
APR 12...	1530	88	3070	4.0	860	180	100	440	7	3.3
MAY 09...	1330	110	2680	10.5	770	160	89	410	7	3.9
JUN 21...	1055	106	2630	13.5	720	150	84	400	7	3.6
JUL 20...	1750	96	2760	22.5	840	180	94	330	5	3.3
AUG 02...	1330	322	1400	18.0	310	72	32	200	5	2.9
SEP 13...	1510	132	2510	14.5	810	180	87	350	6	2.9

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 05...	249	1600	44	.80	11	2600	3.5	599	.400	<.010
NOV 23...	190	1500	32	.60	9.2	2300	3.2	582	.900	.010
JAN 03...	220	1500	30	.40	12	2400	3.2	443	.700	.010
FEB 23...	200	1700	29	.60	12	2600	3.6	354	.500	.020
APR 12...	240	1500	51	.60	11	2400	3.3	577	.300	.040
MAY 09...	240	1300	40	.60	11	2200	2.9	641	.200	.050
JUN 21...	230	1300	39	.60	8.0	2100	2.9	608	.000	.010
JUL 20...	230	1300	38	.40	12	2100	2.9	543	.600	.030
AUG 02...	160	550	20	.50	9.1	980	1.3	854	.300	.130
SEP 13...	230	1200	35	.50	14	2000	2.7	715	.400	.000

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUL							
20...	1750	<.01	<.01	<.01	<.01	<.010	<.010
AUG							
02...	1330	.19	<.01	<.01	<.01	<.010	.010
SEP							
13...	1510	.02	<.01	<.01	<.01	<.010	.010

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2980	1060	3050	2930	2910	2680	3230	3030	2640	2100	1470	2490
2	2850	1070	2860	2940	2960	2390	3140	3100	2640	2020	1200	2510
3	2770	1030	2780	2940	2900	1610	3210	3060	2480	2100	1880	2480
4	2670	1020	2740	2880	2840	1410	3180	2930	2300	2240	2360	2530
5	2760	1020	2840	2860	2910	1420	2920	2810	2160	2400	2650	2540
6	2900	1020	2990	2880	2860	1420	2720	2710	2200	2420	2810	2440
7	2990	1020	3050	2860	2890	1220	2860	2540	2280	2270	2920	2410
8	3130	1260	2850	2870	2880	928	2870	2560	2210	2270	3040	2550
9	3240	2410	2720	2920	2890	---	2660	2210	2240	2220	3030	2620
10	3160	2870	2760	2920	2880	---	2630	933	2350	2110	2970	2600
11	3340	3020	2750	2930	2840	---	2690	897	2380	2060	2850	2440
12	3310	3170	---	2930	2930	---	2930	835	2450	2250	2910	2370
13	3480	2710	---	2940	2790	---	2960	759	2680	2390	2820	2370
14	3450	2380	2950	3190	2800	---	3100	710	2770	2390	2320	2580
15	3300	2420	2910	3000	2770	---	3210	745	2650	2320	2730	2630
16	3180	2360	3020	3320	---	---	3060	803	2650	2240	2470	2860
17	3100	2320	3000	3180	2830	---	2520	752	2820	2120	2330	2960
18	3060	2350	2910	3200	2800	---	1730	---	2630	2300	2270	2920
19	3050	2400	3130	3250	2960	---	1460	---	2480	2440	2270	2950
20	3110	2340	3070	3250	2970	---	1330	---	2320	2610	2250	3120
21	3220	2370	3100	3160	2760	---	1420	1720	2340	2650	2280	3140
22	3290	2750	3190	3070	---	---	1680	1880	2330	2410	2310	3140
23	3340	2850	3260	3020	2950	2520	1940	2270	2330	1760	2380	3130
24	3400	2660	3120	3010	2870	3290	2000	2510	2310	1470	2330	3100
25	3530	2360	2990	3000	2790	3040	2050	2550	2370	1640	2430	3120
26	3560	2270	2920	2950	2870	2820	2130	2680	2210	1600	2640	3090
27	3630	2480	2890	2910	2940	2870	2230	2780	2170	1810	2650	3100
28	3650	2580	2940	2910	2820	2990	2500	2940	2140	2100	2630	3100
29	3000	2490	3010	2860	2760	3020	2710	2940	2130	2550	2620	3100
30	1510	2690	2950	2870	---	3190	2900	2880	2160	2740	2640	3120
31	1020	---	2900	2930	---	3240	---	2690	---	2750	2630	---
MEAN	3060	2160	2950	3000	2870	2360	2530	2120	2390	2220	2500	2780
MAX	3650	3170	3260	3320	2970	3290	3230	3100	2820	2750	3040	3140
MIN	1020	1020	2720	2860	2760	928	1330	710	2130	1470	1200	2370

WTR YR 1984 MEAN 2590 MAX 3650 MIN 710

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	8.0	8.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0
2	11.5	6.5	8.0	5.5	.0	.0	.0	.0	.0	.0	.0	.0
3	10.0	6.0	8.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0
4	12.5	4.0	7.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0
5	14.0	6.0	6.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0
6	13.5	6.0	7.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0
7	14.0	7.0	7.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0
8	15.0	6.5	5.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0
9	12.5	7.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10	11.0	7.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11	11.5	5.0	4.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
12	12.5	4.0	5.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
13	13.0	5.0	4.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
14	9.0	6.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15	10.0	4.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	10.5	2.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	10.5	3.5	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
18	8.5	4.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
19	9.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	9.5	1.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	10.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	10.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	9.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	.0
24	10.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0	8.0	.0
25	9.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	.0
26	10.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
27	9.5	2.0	.0	.0	.0	.0	.0	.0	.0	.0	---	---
28	9.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	---	---
29	9.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
30	7.5	3.0	.0	.0	.0	.0	.0	.0	---	---	---	---
31	8.5	5.0	---	---	.0	.0	.0	.0	---	---	---	---
MONTH	15.0	1.0	8.0	.0	.0	.0	.0	.0	.0	.0	8.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1					---	---	23.0	14.5	19.5	9.5	18.0	10.0
2					---	---	23.0	14.5	21.5	15.5	18.0	9.0
3					---	---	23.0	14.5	23.0	15.5	19.0	9.0
4					---	---	24.0	14.5	21.0	14.5	18.0	10.0
5					15.0	---	25.0	14.5	20.0	14.0	18.0	10.5
6					12.0	7.5	25.5	15.0	23.0	13.5	15.5	12.0
7					14.5	7.0	24.0	17.0	23.0	14.0	12.0	7.5
8					13.5	7.5	24.0	16.5	24.5	13.0	15.5	7.0
9					15.0	6.0	21.0	15.5	24.5	13.5	17.0	9.0
10					12.0	7.0	22.5	13.0	25.0	14.5	17.0	10.0
11					15.5	6.5	23.5	17.5	22.5	14.5	13.0	9.5
12					19.5	7.5	23.5	17.5	24.0	14.5	16.5	10.0
13					21.5	10.5	20.5	17.5	24.5	13.5	15.5	10.0
14					23.5	12.0	23.0	16.0	23.5	15.5	17.5	8.5
15					20.5	12.5	24.5	17.5	22.5	15.0	18.5	10.0
16					19.5	11.0	25.5	17.5	22.0	16.5	18.0	10.5
17					21.0	9.5	25.5	18.5	23.5	14.5	19.5	10.0
18					19.5	10.5	25.5	19.0	24.0	15.5	19.5	10.5
19					22.0	11.0	25.0	20.0	20.0	15.5	19.5	11.0
20					20.5	11.5	23.0	19.0	20.5	14.0	17.0	10.5
21					21.0	10.5	24.0	15.0	21.5	11.5	13.0	8.0
22					21.0	12.0	19.5	15.5	21.5	12.5	14.5	5.0
23					23.0	10.5	22.5	15.0	18.5	13.5	15.5	9.0
24					22.5	13.0	23.5	17.0	20.5	12.5	10.0	6.0
25					22.5	15.0	21.5	16.0	17.5	13.5	12.5	3.0
26					22.5	13.5	23.0	14.5	20.0	10.5	14.0	4.0
27					21.5	14.0	24.5	16.0	19.0	11.0	12.5	5.5
28					25.0	13.5	25.0	16.0	19.5	12.0	12.5	3.0
29					22.5	15.5	25.0	17.0	19.5	11.0	13.0	3.0
30					20.0	15.5	24.5	15.5	21.0	10.5	14.0	4.0
31					---	---	22.0	16.0	17.0	12.5	---	---
MONTH					25.0	6.0	25.5	13.0	25.0	9.5	19.5	3.0
YEAR	25.5	.0										

BEST COPY AVAILABLE

09216790 BITTER CREEK ABOVE KILLPECKER CREEK, AT ROCK SPRINGS, WY

LOCATION.--Lat 41°35'33", long 109°13'27", in NE¼SE¼SW¼ sec.26, T.19 N., R.105 W., Sweetwater County, Hydrologic Unit 14040105, 200 ft downstream from viaduct on State Highway 191 and 800 ft upstream from mouth of Killpecker Creek in Rock Springs.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUL									
16...	1400	6.1	27.5	.10	<.01	<.01	<.01	<.010	<.010
AUG									
01...	1120	21	20.5	<.01	<.01	<.01	<.01	<.010	<.010
SEP									
04...	1430	5.4	20.0	<.01	<.01	<.01	<.01	<.010	<.010

09216810 KILLPECKER CREEK AT ROCK SPRINGS, WY

LOCATION.--Lat 41°35'56", long 109°13'54", in NW¼SW¼NW¼ sec.26, T.19 N., R.105 W., Sweetwater County, Hydrologic Unit 14040105, 0.6 mi downstream from Interstate Highway 80, 0.8 mi upstream from mouth, and 1.2 mi northwest of Rock Springs.

PERIOD OF RECORD.--Water years 1975 to 1980, February 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUL									
16...	1315	.10	27.5	.16	<.01	<.01	<.01	<.010	.020
AUG									
01...	1230	6.0	20.5	<.01	<.01	<.01	<.01	.020	<.010

09217000 GREEN RIVER NEAR GREEN RIVER, WY
(National stream-quality accounting network station)

LOCATION.--Lat 41°30'59", long 109°26'54", in NW¼NE¼NE¼ sec.26, T.18 N., R.107 W., Sweetwater County, Hydrologic Unit 14040106, on right bank 0.1 mi downstream from Bitter Creek, 1.0 mi southeast of town of Green River, and 4.0 mi upstream from high-water line of Flaming Gorge Reservoir.

DRAINAGE AREA.--About 14,000 mi², of which 4,260 mi², including 3,959 mi² in Great Divide Basin in southern Wyoming, is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WSP 1713: 1957. WDR-76-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,060 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Fontenelle Reservoir since August 1963. (See sta 09211150.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 223,000 acres above station.

AVERAGE DISCHARGE.--33 years, 1,763 ft³/s, 1,277,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s, Sept. 7, 1965, gage height, 8.53 ft, caused by emergency release from Fontenelle Reservoir; minimum daily discharge, 170 ft³/s, Nov. 16, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed, 22,200 ft³/s, June 19, 1918, at site 1.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,800 ft³/s, July 3, gage height, 5.39 ft; minimum daily, 600 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1560	2030	1200	810	650	740	950	3680	4480	7410	4620	1670
2	1250	2050	1200	810	660	745	1000	3630	4180	7380	4950	1590
3	1790	2060	1100	810	660	745	1130	3110	4230	7720	4710	1580
4	1790	2060	1000	810	660	750	1240	2830	5070	7700	4550	1590
5	1780	2060	1000	810	670	755	1270	2810	5450	7700	4480	1600
6	1780	2070	1000	820	670	760	1480	2490	5470	7330	4460	1670
7	1780	2090	1000	800	670	760	1620	2200	5520	6340	3960	1740
8	1780	2100	1000	800	670	765	1670	2110	5570	6080	3520	1660
9	1810	1940	1000	800	670	765	1660	2070	5670	5370	3010	1630
10	2030	1840	1000	800	670	770	1710	2140	5720	4440	2540	1590
11	1850	1830	1000	790	680	775	1890	2300	5750	3910	2130	1680
12	1810	1830	970	790	680	785	1890	2380	5720	3820	2040	1840
13	1960	1850	850	780	680	795	1850	2450	5170	3770	2020	1780
14	2110	1860	700	760	680	805	1840	2470	5120	3770	1880	1270
15	2090	1840	650	750	680	805	1840	2810	5150	3770	1110	990
16	2090	1840	650	720	690	805	1850	3430	5200	3750	1620	852
17	2090	1870	700	700	690	805	1880	3630	5250	3750	1780	929
18	2090	1870	800	680	695	810	1930	4230	5300	3750	1880	1700
19	2090	1860	820	650	695	810	2100	5070	5320	3410	1920	1660
20	2090	1860	820	630	700	820	2540	5450	5350	3300	1860	1530
21	2090	1850	810	600	700	825	3010	5500	5320	2920	1860	1280
22	2100	1810	810	640	705	830	3340	6320	5070	2980	1840	946
23	2110	1880	800	650	705	835	3230	6930	5030	3070	1820	663
24	1980	1740	750	650	710	840	3430	7310	5100	2990	1860	716
25	1790	1600	770	650	710	845	3540	7330	5930	2920	1860	852
26	1790	1620	800	650	720	850	3590	7280	7230	2880	1820	1290
27	1790	1580	800	650	725	860	3840	7620	7380	3110	1780	1420
28	1800	1620	810	650	730	870	3790	7700	7380	4250	1750	1460
29	1810	1500	810	650	735	880	3720	6930	7380	4460	1740	1570
30	1850	1300	810	650	---	890	3680	6180	7360	4480	1750	1720
31	2010	---	810	650	---	900	---	5450	---	4480	1770	---
TOTAL	58740	55310	27240	22410	19960	24995	68510	135840	167870	143010	78890	42468
MEAN	1895	1844	879	723	688	806	2284	4382	5596	4613	2545	1416
MAX	2110	2100	1200	820	735	900	3840	7700	7380	7720	4950	1840
MIN	1250	1300	650	600	650	740	950	2070	4180	2880	1110	663
AC-FT	116500	109700	54030	44450	39590	49580	135900	269400	333000	283700	156500	84240

CAL YR 1983 TOTAL 1084910 MEAN 2972 MAX 12600 MIN 650 AC-FT 2152000
WTR YR 1984 TOTAL 845243 MEAN 2309 MAX 7720 MIN 600 AC-FT 1677000

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples of specific conductance and sediment collected at bridge on State Highway 530 in town of Green River, 0.8 mi upstream from Bitter Creek and 1.0 mi upstream from discharge station.

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1951 to current year.
WATER TEMPERATURES: May 1951 to current year.
SUSPENDED-SEDIMENT DISCHARGE: May 1951 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum observed, 1,530 micromhos, June 29, 1977; minimum daily, 212 micromhos, Nov. 23, 1983.
WATER TEMPERATURES: Maximum, 29.0°C, July 1, 1977; minimum, 0.0°C, on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 15,000 mg/L, Aug. 11, 1963; minimum daily mean, 0 mg/L, Sept. 18, 1962.
SEDIMENT LOADS: Maximum daily, 110,000 tons, Mar. 28, 1962; minimum daily, 0 ton Sept. 18, 1962.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum observed, 969 micromhos, Apr. 1; minimum observed, 212 micromhos, Nov. 23.
WATER TEMPERATURES: Maximum, 25.5°C, July 28; minimum, 0.0°C, on many days during November through March.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 894 mg/L, July 23; minimum daily mean, 2 mg/L, several days in November, December, and January.
SEDIMENT LOADS: Maximum daily, 4,720 tons, May 23; minimum daily, 4.3 tons, Dec. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 04...	0925	1780	490	8.8	9.0	8.1	9.2	100	K13	25	180
DEC 05...	0910	E1700	700	8.8	.0	.80	10.1	87	K5	22	240
FEB 01...	0940	644	720	8.6	.0	2.4	10.2	88	K2	24	280
APR 03...	1130	1170	950	8.7	2.0	80	10.3	94	K1	<1	260
JUN 11...	1300	5660	400	8.4	14.0	4.7	10.1	110	K6	K9	140
AUG 07...	0915	3840	320	8.6	14.0	9.9	10.2	125	42	47	150

E-Estimate.
K - Results based on colony count outside the acceptable range (non-ideal colony count.

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 04...	43	17	37	1	1.6	127	130	6.4	.20	4.7	316
DEC 05...	57	23	56	2	1.5	142	200	8.4	.20	5.5	451
FEB 01...	69	26	55	1	1.7	175	200	8.4	.30	8.2	464
APR 03...	62	26	83	2	2.1	177	250	16	.30	9.7	565
JUN 11...	38	12	17	.6	1.5	110	59	3.5	.20	6.0	203
AUG 07...	40	13	23	.8	1.7	123	67	3.8	.20	5.9	233

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 04...	320	.43	1520	<.10	.090	.12	.70	.020	<.010	<.010	93
DEC 05...	440	.61	--	<.10	.070	.09	.70	.030	.030	.010	--
FEB 01...	470	.63	807	.16	.070	.09	<.20	.020	<.010	<.010	--
APR 03...	560	.77	1780	3.7	.090	.12	.50	.210	.030	.030	--
JUN 11...	200	.28	3100	<.10	.050	.06	.30	.040	.050	.010	57
AUG 07...	230	.32	2420	.10	.020	.03	1.6	.040	.040	<.010	--

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
DEC 05...	0910	<10	<1	61	<.5	<1	1	<3	1	11	2
FEB 01...	0940	10	1	73	<.5	<1	<1	<3	<1	10	1
APR 03...	1130	320	1	80	.9	<1	<1	<3	3	400	3
JUN 11...	1300	30	<1	52	2	<1	<1	<3	2	34	3
AUG 07...	0915	10	<1	57	<1	<1	30	<3	<1	13	1

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
DEC 05...	17	5	.1	<10	<1	<1	<1	440	<6	13
FEB 01...	20	3	<.1	<10	4	<1	<1	510	<6	43
APR 03...	19	23	<.1	<10	2	<1	<1	520	<6	29
JUN 11...	12	2	<.1	<10	<1	<1	<1	260	<6	45
AUG 07...	11	2	<.1	<10	7	<1	<1	270	<6	5

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SPECIFIC CONDUCTANCE, LABORATORY (MICROMHOS/CM AT 25 D, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	531	485	595	707	749	950	969	555	392	316	461	469
2	559	479	557	700	749	828	848	553	395	314	444	507
3	516	476	598	719	756	918	946	571	397	306	389	488
4	522	475	654	726	735	829	844	589	370	298	378	493
5	513	478	724	725	727	765	841	576	374	294	375	490
6	510	477	714	712	728	820	772	607	364	298	374	504
7	507	479	672	716	718	802	778	606	364	308	384	506
8	492	476	650	717	729	822	793	594	362	308	387	556
9	491	469	654	719	726	848	792	586	354	321	400	502
10	510	525	679	723	731	782	768	702	339	367	422	504
11	537	513	659	719	729	800	701	569	340	400	430	496
12	521	516	665	728	726	798	723	552	339	363	445	494
13	488	519	681	735	744	791	679	562	343	342	443	508
14	472	534	703	741	740	800	680	550	335	351	449	559
15	470	515	797	752	715	798	659	533	341	346	475	659
16	474	497	714	765	734	806	672	515	341	348	608	665
17	475	497	678	762	716	768	703	525	335	349	486	666
18	472	508	632	764	707	830	722	508	346	340	471	498
19	472	494	699	783	738	780	678	485	352	341	469	500
20	467	408	769	767	735	805	664	473	362	355	466	513
21	469	358	798	766	732	740	633	469	356	363	470	558
22	473	509	804	768	846	794	660	467	363	376	468	650
23	472	212	815	753	812	809	597	440	373	447	464	700
24	498	512	805	726	810	770	587	435	371	430	473	820
25	503	571	785	723	780	775	578	428	348	394	475	790
26	496	600	752	713	844	761	659	426	331	395	473	595
27	494	588	709	711	838	807	572	414	325	379	472	566
28	496	576	682	733	822	939	601	399	323	368	464	550
29	508	545	682	737	789	946	546	392	319	357	465	557
30	507	595	703	740	---	935	551	376	313	363	457	537
31	513	---	721	747	---	918	---	389	---	373	459	---
MEAN	498	496	702	735	755	824	707	511	352	352	448	563

WTR YR 1984 MEAN 578 MAX 969 MIN 212

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.5	9.5	.0	.0	.0	.0	.5	8.0	14.0	19.0	21.0	20.0
2	11.0	9.0	.0	.0	.0	.0	1.0	8.0	17.0	19.5	19.5	20.0
3	10.5	10.0	.0	.0	.0	.0	5.5	8.5	14.0	18.5	19.5	18.0
4	11.0	9.0	.0	.0	.0	.0	7.0	8.5	14.0	18.0	20.0	20.5
5	13.0	9.0	.0	.0	.0	.0	8.0	8.5	13.0	20.0	20.0	20.0
6	12.0	8.5	.0	.0	.0	.0	6.0	7.5	13.0	20.0	20.0	17.0
7	11.5	8.5	.0	.0	.0	.0	7.0	9.5	13.0	19.5	22.0	13.5
8	14.0	6.0	.0	.0	.0	.0	6.5	14.0	13.5	20.0	22.5	12.0
9	14.5	5.0	.0	.0	.0	.0	6.5	14.0	11.5	19.5	23.0	13.5
10	12.0	5.5	.0	.0	.0	.0	6.5	12.0	12.5	20.0	23.0	17.0
11	9.5	5.5	.0	.0	.0	.0	4.0	12.0	11.5	17.5	19.5	16.0
12	11.5	4.5	.0	.0	.0	.0	5.0	12.0	14.5	18.0	22.0	16.5
13	13.0	5.5	.0	.0	.0	4.0	5.5	10.5	15.5	18.0	18.5	16.5
14	11.0	4.5	.0	.0	.0	3.5	9.5	11.0	16.5	19.0	20.0	17.5
15	11.5	4.5	.0	.0	.0	3.5	13.0	15.5	14.5	22.5	20.5	20.0
16	8.0	4.0	.0	.0	.0	3.5	11.5	13.5	16.0	23.0	20.0	16.5
17	8.5	4.5	.0	.0	.0	3.0	12.0	14.5	15.5	23.0	19.0	15.5
18	10.0	4.5	.0	.0	.0	2.0	11.5	14.5	14.5	23.0	22.5	19.5
19	10.0	3.5	.0	.0	.0	2.5	7.5	16.0	16.0	19.0	20.0	18.0
20	10.0	3.5	.0	.0	.0	2.0	5.0	14.5	15.0	22.0	21.5	15.5
21	11.0	.5	.0	.0	.0	.5	2.0	12.5	17.0	20.0	22.0	13.5
22	11.0	.0	.0	.0	.0	1.0	3.5	12.0	14.5	17.5	18.5	14.0
23	11.0	.0	.0	.0	.0	.5	7.5	18.0	18.5	18.5	19.5	12.0
24	6.0	.5	.0	.0	.0	3.0	7.5	15.0	18.5	20.0	20.5	9.5
25	9.0	3.5	.0	.0	.0	3.5	4.5	11.0	17.5	22.0	18.5	10.5
26	9.5	.5	.0	.0	.0	2.0	4.0	12.0	18.0	18.0	16.5	12.5
27	10.0	.5	.0	.0	.0	2.0	3.5	13.5	17.0	18.5	17.5	11.5
28	8.5	2.5	.0	.0	.0	1.0	7.0	15.0	19.0	25.5	18.5	8.0
29	9.0	.0	.0	.0	.0	.0	7.0	15.0	18.5	21.0	20.0	17.0
30	8.5	.0	.0	.0	---	.0	8.0	15.5	18.0	21.0	21.5	18.0
31	9.5	---	.0	.0	---	.5	---	16.0	---	21.0	20.0	---
MEAN	10.5	4.5	.0	.0	.0	1.0	6.5	12.5	15.5	20.0	20.0	15.5

WTR YR 1984 MEAN 9.0 MAX 25.5 MIN .0

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1560	3	13	2030	46	252	1200	20	65
2	1250	45	152	2050	34	188	1200	14	45
3	1790	77	372	2060	32	178	1100	18	53
4	1790	28	135	2060	30	167	1000	12	32
5	1780	16	77	2060	29	161	1000	4	11
6	1780	14	67	2070	27	151	1000	5	14
7	1780	12	58	2090	26	147	1000	12	32
8	1780	9	43	2100	23	130	1000	7	19
9	1810	12	59	1940	16	84	1000	2	5.4
10	2030	200	1100	1840	7	35	1000	4	11
11	1850	214	1070	1830	5	25	1000	2	5.4
12	1810	73	357	1830	6	30	970	4	10
13	1960	51	270	1850	5	25	850	5	11
14	2110	37	211	1860	3	15	700	3	5.7
15	2090	25	141	1840	2	9.9	650	4	7.0
16	2090	20	113	1840	2	9.9	650	5	8.8
17	2090	20	113	1870	3	15	700	8	15
18	2090	17	96	1870	3	15	800	11	24
19	2090	15	85	1860	3	15	820	16	35
20	2090	16	90	1860	3	15	820	10	22
21	2090	16	90	1850	31	155	810	3	6.6
22	2100	14	79	1810	38	186	810	3	6.6
23	2110	18	103	1880	33	168	800	3	6.5
24	1980	27	144	1740	24	113	750	5	10
25	1790	16	77	1600	11	48	770	3	6.2
26	1790	12	58	1620	3	13	800	2	4.3
27	1790	10	48	1580	7	30	800	3	6.5
28	1800	10	49	1620	18	79	810	3	6.6
29	1810	9	44	1500	20	81	810	2	4.4
30	1850	10	50	1300	18	63	810	2	4.4
31	2010	65	353	---	---	---	810	4	8.7
TOTAL	58740	---	5717	55310	---	2603.8	27240	---	502.1
		JANUARY			FEBRUARY			MARCH	
1	810	5	11	650	16	28	740	18	36
2	810	4	8.7	660	24	43	745	15	30
3	810	2	4.4	660	25	45	745	19	38
4	810	4	8.7	660	32	57	750	18	36
5	810	5	11	670	25	45	755	13	26
6	820	11	24	670	21	38	760	22	45
7	800	8	17	670	18	33	760	39	80
8	800	8	17	670	22	40	765	61	126
9	800	9	19	670	21	38	765	74	153
10	800	11	24	670	20	36	770	44	91
11	790	13	28	680	23	42	775	35	73
12	790	10	21	680	19	35	785	51	108
13	780	15	32	680	20	37	795	71	152
14	760	15	31	680	19	35	805	56	122
15	750	14	28	680	18	33	805	82	178
16	720	18	35	690	20	37	805	99	215
17	700	14	26	690	22	41	805	105	228
18	680	11	20	695	17	32	810	102	223
19	650	15	26	695	20	38	810	103	225
20	630	21	36	700	22	42	820	140	310
21	600	20	32	700	21	40	825	193	430
22	640	19	33	705	28	53	830	170	381
23	650	18	32	705	23	44	835	142	320
24	650	14	25	710	24	46	840	144	327
25	650	12	21	710	27	52	845	148	338
26	650	12	21	720	28	54	850	172	395
27	650	13	23	725	21	41	860	218	506
28	650	15	26	730	20	39	870	214	503
29	650	22	39	735	22	44	880	258	613
30	650	15	26	---	---	---	890	188	452
31	650	17	30	---	---	---	900	202	491
TOTAL	22410	---	735.8	19960	---	1188	24995	---	7251

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	950	394	1010	3680	28	278	4480	75	907
2	1000	334	902	3630	34	333	4180	79	892
3	1130	244	744	3110	23	193	4230	56	640
4	1240	232	777	2830	11	84	5070	39	534
5	1270	312	1070	2810	17	129	5450	41	603
6	1480	350	1400	2490	34	229	5470	21	310
7	1620	392	1710	2200	45	267	5520	17	253
8	1670	458	2070	2110	46	262	5570	28	421
9	1660	392	1760	2070	36	201	5670	47	720
10	1710	220	1020	2140	64	370	5720	56	865
11	1890	190	970	2300	126	782	5750	63	978
12	1890	122	623	2380	143	919	5720	50	772
13	1850	92	460	2450	169	1120	5170	64	893
14	1840	100	497	2470	132	880	5120	60	829
15	1840	87	432	2810	150	1140	5150	94	1310
16	1850	132	659	3430	196	1820	5200	88	1240
17	1880	152	772	3630	158	1550	5250	85	1200
18	1930	168	875	4230	194	2220	5300	94	1350
19	2100	219	1240	5070	256	3500	5320	98	1410
20	2540	374	2560	5450	248	3650	5350	92	1330
21	3010	470	3820	5500	254	3770	5320	72	1030
22	3340	340	3070	6320	272	4640	5070	53	726
23	3230	254	2220	6930	252	4720	5030	68	924
24	3430	210	1940	7310	206	4070	5100	48	661
25	3540	234	2240	7330	170	3360	5930	62	993
26	3590	196	1900	7280	148	2910	7230	79	1540
27	3840	132	1370	7620	138	2840	7380	56	1120
28	3790	82	839	7700	114	2370	7380	46	917
29	3720	69	693	6930	94	1760	7380	51	1020
30	3680	34	338	6180	80	1330	7360	36	715
31	---	---	---	5450	64	942	---	---	---
TOTAL	68510	---	39981	135840	---	52639	167870	---	27103
		JULY			AUGUST			SEPTEMBER	
1	7410	51	1020	4620	114	1420	1670	25	113
2	7380	46	917	4950	284	3800	1590	19	82
3	7720	45	938	4710	180	2290	1580	25	107
4	7700	39	811	4550	92	1130	1590	40	172
5	7700	47	977	4480	84	1020	1600	34	147
6	7330	46	910	4460	90	1080	1670	74	334
7	6340	57	976	3960	39	417	1740	287	1350
8	6080	43	706	3520	17	162	1660	74	332
9	5370	29	420	3010	10	81	1630	49	216
10	4440	421	5050	2540	9	62	1590	72	309
11	3910	84	887	2130	6	35	1680	41	186
12	3820	12	124	2040	1	5.5	1840	51	253
13	3770	8	81	2020	13	71	1780	84	404
14	3770	6	61	1880	32	162	1270	66	226
15	3770	5	51	1110	53	159	990	63	168
16	3750	5	51	1620	52	227	852	16	37
17	3750	4	41	1780	30	144	929	34	85
18	3750	11	111	1880	24	122	1700	52	239
19	3410	26	239	1920	31	161	1660	70	314
20	3300	581	5180	1860	32	161	1530	82	339
21	2920	88	694	1860	31	156	1280	85	294
22	2980	240	1930	1840	32	159	946	82	209
23	3070	894	7410	1820	45	221	663	84	150
24	2990	208	1680	1860	430	2160	716	89	172
25	2920	98	773	1860	96	482	852	88	202
26	2880	56	435	1820	28	138	1290	103	359
27	3110	70	588	1780	29	139	1420	102	391
28	4250	90	1030	1750	31	146	1460	109	430
29	4460	52	626	1740	32	150	1570	110	466
30	4480	50	605	1750	25	118	1720	158	734
31	4480	48	581	1770	20	96	---	---	---
TOTAL	143010	---	35903	78890	---	16674.5	42468	---	8820
YEAR	845243		199118.2						

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09217010 GREEN RIVER BELOW GREEN RIVER, WY

LOCATION.--Lat 41°29'46", long 109°26'17", in SW¼SE¼NW¼ sec.36, T.18 N., R.107 W., Sweetwater County, Hydrologic Unit 14040106, at bridge on county road, 1.7 mi downstream from Bitter Creek, 2.7 mi southeast of town of Green River, and 3.3 mi upstream from Logan Draw.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT 26...	1000	1730	530	8.8	7.0	10.5	108	--	K2	--
DEC 05...	1045	E1700	800	8.8	.0	10.2	88	--	K5	250
JAN 11...	0930	E800	800	8.5	.0	10.0	87	1200	K4	--
FEB 27...	1300	E650	620	8.1	.0	12.0	103	15	150	270
APR 03...	1430	1170	1050	8.4	2.0	11.2	103	31	110	310
JUN 12...	1100	5740	360	8.4	12.0	10.5	109	22	K16	140
JUL 10...	0845	4560	350	8.5	17.0	10.3	135	41	100	130
AUG 07...	0730	3840	320	8.6	14.0	10.2	125	22	46	150
SEP 05...	1600	1620	540	8.6	19.0	9.4	128	--	K8	--

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT 26...	--	--	--	--	--	--	--	--	--	--
DEC 05...	59	24	66	2	1.6	147	230	16	.20	5.8
JAN 11...	--	--	--	--	--	--	--	--	--	--
FEB 27...	66	26	57	2	2.3	188	200	13	.30	8.6
APR 03...	70	33	110	3	3.0	69	320	42	.30	7.7
JUN 12...	38	12	18	.7	1.6	108	59	4.3	.10	5.7
JUL 10...	34	9.8	25	1	1.6	109	57	5.3	.20	6.9
AUG 07...	39	13	22	.8	1.3	126	68	5.1	.20	6.0
SEP 05...	--	--	--	--	--	--	--	--	--	--

09217010 GREEN RIVER BELOW GREEN RIVER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 26...	--	--	--	--	<.10	--	.060	.34	.40	.020
DEC 05...	482	490	.66	--	.10	.14	.160	.64	.80	.040
JAN 11...	--	--	--	--	.10	--	.200	.00	.20	.070
FEB 27...	477	490	.65	--	.20	.17	.140	.36	.50	.110
APR 03...	796	630	1.1	2510	.20	<.10	.130	.87	1.0	.450
JUN 12...	214	200	.29	3320	<.10	.55	.040	.46	.50	.040
JUL 10...	203	210	.28	2500	.40	<.10	.070	1.4	1.5	.530
AUG 07...	235	230	.32	2440	<.10	<.10	.050	.35	.40	.040
SEP 05...	--	--	--	--	<.10	--	.030	1.1	1.1	.300

09217900 BLACKS FORK NEAR ROBERTSON, WY

LOCATION.--Lat 40°57'53", long 110°34'38", in NW¼SW¼ sec.27, T.3 N., R.12 E., Summit County, UT, Hydrologic Unit 14140107, on left bank 1 mi downstream from East Fork, 2.5 mi south of Utah-Wyoming State line, and 17 mi south of Robertson.

DRAINAGE AREA.--130 mi², approximately.

PERIOD OF RECORD.--October 1937 to July 1939 (published as "at Blacks Fork Ranger Station"), July 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,804.8 ft, National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Datums published from October 1968 to September 1978 are incorrect. October 1937 to July 1939, water-stage recorder at site 85 ft upstream at different datum.

REMARKS.--Records poor. No diversion above station.

AVERAGE DISCHARGE.--19 years (water years 1938, 1967-84), 163 ft³/s, 118,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft³/s June 19, 1983; maximum gage height, 4.91 ft June 6, 1968; minimum daily discharge, 5.5 ft³/s Jan. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 23	2200	*2,270	*3.63	May 31	2300	1,860	3.28

Minimum daily discharge, 19 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	82	45	30	20	22	24	37	1390	835	265	152
2	112	79	46	28	21	22	24	39	983	700	236	129
3	110	73	48	28	22	22	24	41	1040	651	217	116
4	106	74	48	29	22	22	24	43	715	610	200	109
5	111	72	48	30	21	21	26	45	701	544	214	107
6	111	67	48	30	21	22	28	40	592	501	253	175
7	110	72	50	29	23	22	30	36	519	471	181	143
8	111	74	50	29	22	23	30	36	425	579	177	117
9	110	66	50	29	23	23	32	81	363	775	162	111
10	137	60	50	29	23	24	30	126	337	637	157	99
11	139	60	50	27	23	24	28	189	310	448	157	97
12	123	64	48	27	22	24	26	276	292	420	159	154
13	124	64	46	26	23	24	28	422	328	454	165	134
14	129	60	45	26	23	24	30	727	507	421	172	120
15	120	55	44	25	22	24	35	1170	693	376	157	113
16	111	55	42	24	23	23	40	1170	665	343	168	106
17	111	60	42	25	24	23	45	1010	672	310	156	105
18	111	64	40	23	25	23	50	1020	798	290	145	105
19	98	60	37	22	22	24	50	1110	791	286	164	98
20	103	55	35	20	21	24	45	1370	804	290	203	118
21	98	50	30	19	20	24	40	1550	843	319	145	210
22	95	48	25	20	21	24	40	1490	857	489	143	147
23	92	48	25	21	22	24	42	1740	791	399	140	122
24	98	48	28	22	22	24	44	1760	799	383	149	126
25	84	50	30	23	22	24	46	1270	822	404	206	123
26	83	50	32	23	22	24	40	1160	846	383	200	146
27	80	48	34	25	22	24	36	1170	824	366	159	134
28	76	47	32	25	22	24	33	1080	775	318	140	126
29	75	47	30	24	22	24	33	1180	730	329	132	118
30	75	45	30	22	---	24	35	1390	822	298	128	110
31	80	---	32	21	---	24	---	1670	---	292	131	---
TOTAL	3246	1797	1240	781	641	724	1038	24448	21034	13921	5381	3770
MEAN	105	59.9	40.0	25.2	22.1	23.4	34.6	789	701	449	174	126
MAX	139	82	50	30	25	24	50	1760	1390	835	265	210
MIN	75	45	25	19	20	21	24	36	292	286	128	97
AC-FT	6440	3560	2460	1550	1270	1440	2060	48490	41720	27610	10670	7480

CAL YR 1983 TOTAL 81989 MEAN 225 MAX 1880 MIN 22 AC-FT 162600
WTR YR 1984 TOTAL 78021 MEAN 213 MAX 1760 MIN 19 AC-FT 154800

09218500 BLACKS FORK NEAR MILLBURNE, WY

LOCATION.--Lat 41°01'54", long 110°34'43", in NW¼NE¼SW¼ sec.11, T.12 N., R.117 W., Uinta County, Hydrologic Unit 14040107, on left bank 0.4 mi downstream from Meeks Cabin Dam, 2.7 mi north of Utah-Wyoming State line, and 17 mi southwest of Millburne.

DRAINAGE AREA.--152 mi^2 (394 km^2).

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 929: 1940.

GAGE.--Water-stage recorder. Datum of gage is 8,512.27 ft, National Geodetic Vertical Datum of 1929, Bureau of Reclamation datum. Prior to Oct. 1, 1971, at several sites about 2.0 mi downstream at various datums.

REMARKS.--Records good except those for October and November, which are poor. Flow completely regulated by Meeks Cabin Reservoir, capacity, 32,470 acre-ft, since June 1971. No diversion above station.

AVERAGE DISCHARGE.--45 years, 163 ft^3/s, 118,100 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft^3/s, June 7, 1957, from rating curve extended above 1,500 ft^3/s; maximum gage height, 6.46 ft in gage well, 6.76 ft from floodmarks, June 12, 1965, site and datum then in use; minimum daily discharge, 1.0 ft^3/s, Sept. 15, 16, 1983, due to regulation by Meeks Cabin Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft^3/s, May 24, gage height, 4.65 ft; minimum daily, 30 ft^3/s, Oct. 1-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	100	104	39	38	38	38	38	1370	900	372	147
2	30	100	104	39	38	38	38	38	1260	837	372	147
3	30	100	104	39	38	38	38	38	1260	778	372	147
4	30	100	104	39	38	38	38	38	1120	727	372	147
5	30	100	104	39	38	38	38	38	1090	697	369	147
6	30	100	104	39	38	38	38	38	887	641	367	147
7	30	100	75	39	38	38	38	38	650	608	322	147
8	30	100	39	39	38	38	38	38	596	610	271	147
9	30	100	39	39	38	38	38	39	597	621	271	149
10	30	100	39	39	38	38	38	41	599	689	271	151
11	30	100	39	39	38	38	38	41	553	665	271	173
12	30	100	39	39	38	38	38	41	507	624	271	194
13	30	100	39	39	38	38	38	41	509	615	268	194
14	40	100	39	39	38	38	38	41	515	616	222	194
15	50	100	39	39	38	38	38	72	518	615	176	194
16	50	100	39	39	38	38	38	319	520	611	177	194
17	75	100	39	39	38	38	38	784	520	546	176	194
18	100	102	39	39	38	38	38	1130	625	460	176	190
19	100	102	39	39	38	38	38	1190	793	460	176	191
20	100	102	39	39	38	38	38	1220	868	460	154	191
21	100	102	39	39	38	38	38	1210	901	456	128	191
22	100	102	39	39	38	38	38	1170	905	456	128	191
23	100	103	39	39	38	38	38	1180	906	456	128	191
24	100	104	39	39	38	38	38	1490	902	416	128	191
25	100	104	39	39	38	38	38	1350	899	369	128	191
26	100	104	39	38	38	38	38	1310	910	372	128	198
27	100	104	39	38	38	38	38	1310	900	372	128	205
28	100	104	39	38	38	38	38	1300	860	372	138	206
29	100	104	39	38	38	38	38	1310	835	372	147	205
30	100	104	39	38	---	38	38	1330	864	372	147	206
31	100	---	39	38	---	38	---	1350	---	372	147	---
TOTAL	2005	3041	1635	1203	1102	1178	1140	19573	24239	17165	6901	5360
MEAN	64.7	101	52.7	38.8	38.0	38.0	38.0	631	808	554	223	179
MAX	100	104	104	39	38	38	38	1490	1370	900	372	206
MIN	30	100	39	38	38	38	38	38	507	369	128	147
AC-FT	3980	6030	3240	2390	2190	2340	2260	38820	48080	34050	13690	10630

CAL YR 1983 TOTAL 98211.9 MEAN 269 MAX 1940 MIN 1.0 AC-FT 194800
WTR YR 1984 TOTAL 84542.0 MEAN 231 MAX 1490 MIN 30 AC-FT 167700

09220000 EAST FORK OF SMITHS FORK NEAR ROBERTSON, WY

LOCATION.--Lat 41°03'15", long 110°23'52", in NE¼NW¼NE¼ sec.5, T.12 N., R.115 W., Uinta County, Hydrologic Unit 14040107, Wasatch National Forest, on left bank 60 ft downstream from bridge, 1.0 mi upstream from Gilbert Creek, 6.1 mi downstream from State Line Reservoir, and 9.0 mi south of Robertson.

DRAINAGE AREA.--53.0 mi².

PERIOD OF RECORD.--July 1939 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313. Prior to Oct. 1, 1978, published as East Fork of Smith Fork near Robertson.

REVISED RECORDS.--WSP 979: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,470 ft, from topographic map. Prior to July 12, 1957, at datum 3.96 ft higher.

REMARKS.--Records fair except those for April, which are poor. Flow completely regulated by State Line Reservoir, 6.1 mi upstream, total capacity, 14,000 acre-ft, dead storage is about 2,000 acre-ft, since May 1979.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--32 years (water years 1940-71), 47.1 ft³/s, 34,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s, June 10, 1965, gage height, 6.75 ft; no flow part of each day Apr. 17-22, 24, 25, 1950; minimum gage height, 3.26 ft, present datum, Apr. 22, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 601 ft³/s, May 24, gage height, 5.84 ft; minimum daily during period of operation, 22 ft³/s, May 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							28	23	460	279	100	49
2							28	23	437	221	100	49
3							28	23	454	205	98	49
4							28	23	460	198	96	49
5							28	22	409	198	96	49
6							28	23	249	146	96	51
7							28	23	176	133	96	49
8							28	23	137	128	95	48
9							28	27	139	128	76	48
10							28	31	146	153	61	48
11							28	34	146	160	60	48
12							28	37	146	163	61	48
13							28	39	151	181	60	48
14							28	41	148	179	58	49
15							28	44	151	179	61	48
16							28	41	153	173	58	48
17							28	35	160	173	51	50
18							28	34	181	168	52	53
19							27	33	231	133	51	53
20							27	32	234	114	51	54
21							26	71	249	114	50	56
22							27	267	238	107	49	56
23							27	393	231	101	49	58
24							27	472	234	101	50	58
25							26	521	238	100	50	58
26							25	454	241	98	50	58
27							25	503	241	98	50	58
28							24	497	234	98	50	58
29							25	478	231	98	50	58
30							24	472	241	96	49	58
31							---	497	---	98	49	---
TOTAL							814	5236	7146	4521	2023	1564
MEAN							27.1	169	238	146	65.3	52.1
MAX							28	521	460	279	100	58
MIN							24	22	137	96	49	48
AC-FT							1610	10390	14170	8970	4010	3100

09221650 SMITHS FORK NEAR LYMAN, WY

LOCATION.--Lat 41°22'31", long 110°12'14", in SW¼SE¼SE¼ sec.12, T.16 N., R.114 W., Uinta County, Hydrologic Unit 14040107, at bridge on U.S. Highway 30S, 1.5 mi downstream from Cottonwood Creek, 1.6 mi upstream from bridge on Interstate Highway 80, 2.4 mi upstream from mouth, and 5.7 mi northeast of Lyman.

PERIOD OF RECORD.--Water years 1974 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
12...	1500	135	24.0	<.01	<.01	<.01	<.01	<.010	.010
JUL									
12...	1400	160	20.0	.01	<.01	<.01	<.01	<.010	<.010
AUG									
09...	1500	130	24.5	.01	<.01	<.01	<.01	<.010	<.010
SEP									
06...	1130	126	14.5	<.01	<.01	<.01	<.01	<.010	.010

09222000 BLACKS FORK NEAR LYMAN, WY

LOCATION.--Lat 41°27'08", long 110°10'20", in SW¼NW¼SW¼ sec.15, T.17 N., R.113 W., Uinta County, Hydrologic Unit 14040107, 200 ft downstream from bridge on old U.S. Highway 30S, 8.5 mi downstream from Smiths Fork, and 11 mi northeast of Lyman.

DRAINAGE AREA.--821 mi^2.

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to September 1983.
WATER TEMPERATURES: May 1962 to September 1983.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUL									
12...	1500	335	24.0	.01	<.01	<.01	<.01	<.010	.010
AUG									
09...	1530	255	24.5	.07	<.01	<.01	<.01	<.010	<.010
SEP									
06...	1230	184	14.5	<.01	<.01	<.01	<.01	<.010	<.010

09223000 HAMS FORK BELOW POLE CREEK, NEAR FRONTIER, WY

LOCATION.--Lat 42°06'38", long 110°42'32", in NE¼SE¼NW¼ sec.35, T.25 N., R.117 W., Lincoln County, Hydrologic Unit 14040107, on left bank 2.0 mi downstream from Pole Creek, 4.6 mi upstream from Taylor Creek, and 22 mi northwest of Frontier.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1970, published as "near Elk Creek ranger station."

GAGE.--Water-stage recorder. Altitude of gage is 7,455 ft, from topographic map. October 1952 to Sept. 2, 1971, at site 270 ft upstream at present datum, Sept. 3, 1971 to July 30, 1980, at site 150 ft upstream at present datum.

REMARKS.--Records poor. No diversion above station.

AVERAGE DISCHARGE.--32 years, 105 ft^3/s, 76,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft^3/s, May 31, 1984, gage height, 7.28 ft; maximum gage height, 8.10 ft, May 28, 1971, site then in use; minimum daily, 0.10 ft^3/s, Aug. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 15	2300	1,320	6.97
May 31	2000	1,580	7.28

Minimum daily discharge, 17 ft^3/s, Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	30	30	29	25	22	22	54	1340	396	71	46
2	45	30	30	28	26	23	22	60	1220	392	71	47
3	56	31	31	29	27	23	22	78	1110	382	66	41
4	56	30	32	30	27	22	21	90	1110	356	67	34
5	54	30	33	32	26	21	22	94	1080	336	64	30
6	52	31	34	31	26	21	24	80	1120	258	60	41
7	45	31	35	30	26	20	27	64	1160	282	58	42
8	37	32	35	29	25	21	29	83	1010	255	55	42
9	42	32	35	28	25	21	31	129	833	228	51	37
10	45	30	34	26	25	23	32	205	735	206	50	30
11	40	29	33	26	25	22	31	268	688	193	50	45
12	37	30	33	26	26	22	30	434	596	184	52	66
13	37	31	32	25	26	22	32	726	567	162	52	45
14	37	32	32	25	25	22	34	863	575	124	52	41
15	39	32	30	25	23	23	40	1050	624	117	54	41
16	39	33	28	25	23	22	50	1180	727	110	59	39
17	38	35	26	24	24	22	60	828	644	106	61	37
18	36	34	24	21	24	21	70	768	581	101	57	30
19	35	34	22	22	23	22	82	860	593	101	55	33
20	34	33	20	22	21	22	76	921	571	101	62	33
21	33	32	19	23	20	23	60	895	687	110	50	43
22	33	32	18	24	20	23	62	955	641	131	51	49
23	33	31	17	25	21	22	74	1130	609	121	54	67
24	34	31	18	26	22	22	90	1360	569	99	52	98
25	34	33	20	27	22	22	86	1340	537	89	54	84
26	32	32	23	28	23	22	74	1160	546	87	57	86
27	30	31	28	28	22	21	64	1160	533	88	47	87
28	30	31	27	27	22	21	58	1170	502	89	45	84
29	29	31	25	27	22	21	54	1220	448	88	45	80
30	29	30	27	26	---	21	52	1310	428	83	43	79
31	29	---	31	25	---	21	---	1460	---	72	45	---
TOTAL	1193	944	862	819	692	676	1431	21995	22384	5447	1710	1557
MEAN	38.5	31.5	27.8	26.4	23.9	21.8	47.7	710	746	176	55.2	51.9
MAX	56	35	35	32	27	23	90	1460	1340	396	71	98
MIN	29	29	17	21	20	20	21	54	428	72	43	30
AC-FT	2370	1870	1710	1620	1370	1340	2840	43630	44400	10800	3390	3090

CAL YR 1983 TOTAL 59100 MEAN 162 MAX 1300 MIN 15 AC-FT 117200
WTR YR 1984 TOTAL 59710 MEAN 163 MAX 1460 MIN 17 AC-FT 118400

09224050 HAMS FORK NEAR DIAMONDVILLE, WY

LOCATION.--Lat 41°45'06", long 110°31'57", in NW¼SE¼SW¼ sec.36, T.21 N., R.116 W., Lincoln County, Hydrologic Unit 14040107, at bridge on U.S. Highway 30N, 1.9 mi south of Diamondville, and 2.8 mi south of Kemmerer.

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT							
24...	1030	48	515	8.6	6.5	10.0	105
DEC							
06...	0945	34	500	8.4	.0	9.0	80
JAN							
11...	1300	100	570	8.3	.0	9.9	88
FEB							
27...	1000	101	340	8.2	.0	10.4	91
APR							
09...	1000	106	600	8.3	4.0	10.8	102
JUN							
13...	1430	568	410	8.2	13.0	9.3	116
JUL							
12...	1230	148	400	8.5	20.0	9.0	110
26...	1415	100	530	8.5	20.5	--	--
AUG							
09...	1300	94	380	8.6	20.0	11.8	163
SEP							
06...	0930	100	410	8.3	15.0	7.1	92

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT						
24...	590	<.10	.050	.65	.70	.080
DEC						
06...	73	.20	<.010	--	1.6	.070
JAN						
11...	400	.20	.090	.11	.20	.110
FEB						
27...	72	.10	.090	.41	.50	.530
APR						
09...	110	1.7	.110	.69	.80	.090
JUN						
13...	K3	<.10	.040	.46	.50	.090
JUL						
12...	K10	<.10	.040	.66	.70	.060
26...	48	.10	.030	.57	.60	.100
AUG						
09...	45	<.10	.030	.37	.40	.090
SEP						
06...	78	<.10	.040	.96	1.0	.120

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN									
13...	1430	568	13.0	<.01	<.01	<.01	<.01	<.010	<.010
JUL									
12...	1230	148	20.0	<.01	<.01	<.01	<.01	<.010	<.010
AUG									
09...	1300	94	20.0	<.01	<.01	<.01	<.01	<.010	.010

09224450 HAMS FORK NEAR GRANGER, WY

LOCATION.--Lat 41°35'56", long 109°59'28", in center of sec.30, T.19 N., R.111 W., Sweetwater County, Hydrologic Unit 14040107, at railroad bridge, 1.2 mi northwest of Granger, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--670 mi², approximately.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 24...	0910	42	781	7.0	300	75	27	57	1	1.6
JAN 11...	1330	107	672	.5	280	77	21	41	1	1.8
APR 09...	0845	185	796	3.0	270	68	25	66	2	1.7
JUN 12...	1300	842	496	13.0	230	65	16	23	.7	1.0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	200	200	25	.30	.8	510	.69	57	.000	.090
JAN 11...	200	140	16	.20	4.2	420	.57	122	.200	.030
APR 09...	180	190	31	.40	3.1	490	.67	246	.100	.050
JUN 12...	200	64	9.1	.20	5.8	300	.41	691	1.60	.030

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY

LOCATION.--Lat 41°32'46", long 109°41'34", in NE¼NE¼NE¼ sec.15, T.18 N., R.109 W., Sweetwater County, Hydrologic Unit 14040107, on right bank 200 ft upstream from bridge on U.S. Highway 30, 4.2 mi upstream from Meadow Springs Wash, and 8.5 mi east of Little America.

DRAINAGE AREA.--3,100 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,127.66 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Natural flow of stream affected by regulation from Meeks Cabin Reservoir, capacity, 32,470 acre-ft, since June 1971, Viva Naughton Reservoir, capacity, 42,400 acre-ft, from State Line Reservoir, capacity, 14,000 acre-ft, since April 1980, numerous smaller reservoirs, and diversions for irrigation of about 76,100 acres above station.

AVERAGE DISCHARGE.--22 years, 373 ft³/s, 270,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,980 ft³/s, June 13, 1965, gage height, 10.90 ft; no flow Sept. 20-26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,370 ft³/s, May 26, gage height, 9.95 ft; minimum daily, 150 ft³/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	230	200	250	290	350	894	929	3560	1230	751	259
2	244	254	220	250	290	400	864	952	3880	989	796	288
3	244	263	230	250	290	420	852	1000	3690	976	637	250
4	244	263	230	270	300	400	835	1030	3200	969	586	240
5	254	263	230	300	300	350	835	1090	2950	914	499	233
6	258	263	230	300	300	350	900	1100	2740	864	506	261
7	249	273	250	300	300	380	984	1110	2700	800	539	446
8	249	283	270	300	300	400	994	932	2320	739	506	367
9	240	283	270	300	300	450	969	892	2140	688	453	318
10	249	283	270	300	300	500	884	1030	2110	684	403	291
11	310	280	270	295	320	550	752	1540	2020	726	370	262
12	512	295	250	290	340	600	642	2060	1900	760	342	250
13	512	343	250	290	360	560	594	2680	1540	760	328	237
14	517	374	240	290	360	560	592	3110	1410	631	326	267
15	523	393	240	290	360	600	631	3420	1330	611	311	273
16	523	396	240	290	360	650	717	3680	1140	500	322	264
17	523	290	230	280	360	700	857	3940	1050	455	542	254
18	409	328	220	240	360	680	981	3910	976	420	490	253
19	231	426	220	190	330	640	1180	3800	950	426	385	236
20	244	300	210	150	300	600	1350	4020	949	421	358	219
21	244	247	190	180	270	650	1160	4020	1170	407	394	220
22	258	210	170	210	270	750	1020	4460	1300	585	439	243
23	244	176	160	250	300	850	959	4820	1320	753	392	347
24	249	205	170	300	300	880	1010	4670	1220	823	497	386
25	222	230	190	350	330	880	1240	4730	1210	1020	342	366
26	212	230	230	350	350	860	1330	5280	1160	900	316	403
27	230	200	270	330	330	820	1210	4720	1150	800	336	407
28	233	200	250	330	330	820	1110	4260	1010	750	329	390
29	239	220	230	330	330	860	1040	3980	937	700	292	385
30	256	200	230	310	---	900	983	3740	917	698	270	377
31	229	---	260	290	---	920	---	3540	---	824	261	---
TOTAL	9391	8201	7120	8655	9230	19330	28369	90445	53949	22823	13318	8992
MEAN	303	273	230	279	318	624	946	2918	1798	736	430	300
MAX	523	426	270	350	360	920	1350	5280	3880	1230	796	446
MIN	212	176	160	150	270	350	592	892	917	407	261	219
AC-FT	18630	16270	14120	17170	18310	38340	56270	179400	107000	45270	26420	17840

CAL YR 1983 TOTAL 321413 MEAN 881 MAX 6970 MIN 87 AC-FT 637500
WTR YR 1984 TOTAL 279823 MEAN 765 MAX 5280 MIN 150 AC-FT 555000

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1951 to current year.
WATER TEMPERATURES: March 1951 to September 1963, December 1964 to current year.

REMARKS.--Published as "near Green River" prior to October 1953 and as "near Marston" October 1953 to September 1964. Partial record of specific conductance and temperature for water years 1979 and 1980 are available at District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,010 micromhos, Oct. 1, 1953; minimum daily, 194 micromhos, May 17, 1984.
WATER TEMPERATURES: Maximum, 40.0°C, July 31, Aug. 1, 2, 3, 4, 1984; minimum, 0.0°C, on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,650 micromhos, Apr. 15, 16; minimum daily, 194 micromhos, May 17.
WATER TEMPERATURES: Maximum, 40.0°C, July 31, Aug. 1, 2, 3, 4; minimum, 0.0°C, on many days during November through April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT 25...	1430	227	1190	8.0	430	100	43	120	3	3.8	205
NOV 25...	1240	220	1150	.0	450	110	43	120	3	3.4	239
JAN 11...	1000	296	1090	.5	380	94	36	100	2	3.2	244
MAR 07...	1030	377	784	.0	300	74	27	59	2	2.8	217
APR 13...	1340	610	1410	7.0	430	100	43	150	3	4.6	232
MAY 25...	1045	4610	467	11.0	180	47	16	28	.9	2.9	139
JUN 18...	1145	975	976	15.0	360	88	33	82	2	4.1	226
JUL 20...	0855	419	1270	22.0	480	120	43	120	2	4.4	221
SEP 06...	1430	260	1640	15.5	410	95	42	140	3	3.8	189
21...	1000	213	1510	13.5	450	100	48	160	3	4.4	185

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 25...	410	63	.40	7.2	870	1.2	534	<.10	240	10
NOV 25...	370	57	.40	8.0	860	1.2	508	<.10	190	31
JAN 11...	290	54	.40	11	740	1.0	588	.17	180	94
MAR 07...	170	31	.30	8.2	500	.68	512	.13	110	40
APR 13...	360	92	.50	8.6	900	1.2	1480	.21	190	22
MAY 25...	74	16	.20	9.1	280	.38	3440	.22	70	140
JUN 18...	230	50	.40	9.2	630	.86	1660	<.10	160	35
JUL 20...	410	55	.50	9.4	900	1.2	1010	<.10	240	9
SEP 06...	420	69	.50	7.0	890	1.2	625	<.10	250	<3
21...	450	73	.50	7.3	950	1.3	549	<.10	310	6

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1460	1430	1120	1030	899	797	1340	655	525	---	683	1230
2	1380	1430	1090	1030	866	801	1610	636	500	---	1200	1150
3	1430	1440	1070	1020	845	803	1640	608	497	---	683	1210
4	1490	1420	1100	1010	834	798	1540	569	483	---	681	---
5	1530	1480	1100	1020	824	792	1540	535	506	---	675	---
6	1480	1460	1070	1050	808	785	1540	513	535	---	1100	1270
7	1430	1440	1040	1060	806	787	1480	486	613	---	---	1030
8	1440	1420	1010	1040	800	792	1510	477	690	---	---	1100
9	1520	1400	1020	1040	796	801	1570	479	748	---	---	1360
10	1460	1410	996	1040	795	814	1590	482	788	1000	---	1460
11	1430	1500	971	1050	793	811	1620	458	817	---	---	1410
12	1440	1460	953	1050	785	806	1620	412	846	---	---	1360
13	1630	1460	998	1050	789	812	1610	373	878	---	---	1390
14	1470	1480	1010	1060	786	828	1600	394	913	---	1190	1380
15	1410	1480	1010	1060	780	847	1650	291	946	---	1190	1340
16	1370	1440	1010	1060	781	859	1650	256	974	---	1180	1320
17	1400	1430	1020	1060	781	881	1440	194	1000	---	1030	1320
18	1390	1390	1020	1070	778	912	1160	248	1030	---	992	1310
19	1480	1380	1000	1100	784	939	887	321	1020	---	1060	1320
20	1480	1350	1010	1110	790	954	809	264	1030	900	1140	1380
21	1450	1330	1020	1110	792	954	770	246	1040	---	1090	1430
22	1470	1370	1010	1090	793	945	702	319	1050	---	1180	1440
23	1360	1310	1030	1090	796	933	733	432	1050	---	1040	1480
24	1350	1170	1030	1070	808	966	745	476	1050	---	841	1390
25	1360	1140	1050	1050	810	1070	656	487	1040	---	952	1260
26	1380	1160	1080	1030	806	1130	618	325	1040	---	1080	1270
27	1420	1260	1080	1000	801	1190	589	320	1040	---	1120	1280
28	1420	1220	1090	983	807	1130	590	399	1050	---	1160	1260
29	1400	1130	1090	976	805	1080	602	441	---	---	1200	1240
30	1400	1110	1080	965	---	1040	633	443	---	1000	1180	1210
31	1410	---	1040	942	---	1040	---	459	---	683	1220	---
MEAN	1440	1360	1040	1040	805	906	1200	419	846	896	1040	1310
MAX	1630	1500	1120	1110	899	1190	1650	655	1050	1000	1220	1480
MIN	1350	1110	953	942	778	785	589	194	483	683	675	1030

WTR YR 1984 MEAN 1030 MAX 1650 MIN 194

BEST COPY AVAILABLE

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	11.5	6.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0
2	12.0	10.0	7.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0
3	10.5	8.0	8.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0
4	11.5	6.5	7.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0
5	13.0	8.0	5.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0
6	13.5	9.5	6.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0
7	14.0	10.0	6.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0
8	14.5	10.5	4.5	2.0	.0	.0	.0	.0	.0	.0	.0	.0
9	14.5	10.5	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10	12.5	10.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
11	9.5	7.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	9.0	6.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	9.5	6.5	2.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
14	9.0	7.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
15	8.0	5.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	8.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	8.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	8.5	5.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	7.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	7.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	7.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	8.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	8.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
24	8.5	6.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	7.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26	7.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
27	7.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
28	7.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0
29	8.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
30	6.5	4.0	.0	.0	.0	.0	.0	.0	---	---	.0	.0
31	7.0	4.5	---	---	.0	.0	.0	.0	---	---	1.5	.0
MONTH	14.5	.5	8.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.5	.0	6.5	4.0	14.0	13.0	---	---	40.0	30.0	19.0	14.5
2	1.0	.0	7.0	4.5	13.5	12.0	---	---	40.0	30.0	18.5	13.5
3	2.5	.0	7.0	5.0	13.5	12.5	---	---	40.0	30.0	20.0	14.0
4	2.5	.0	7.5	5.0	12.5	11.5	---	---	40.0	30.0	---	---
5	3.5	.5	7.5	5.5	11.5	10.0	---	---	39.5	37.0	---	---
6	4.0	3.0	7.0	5.0	10.5	9.5	---	---	38.5	37.0	---	14.5
7	5.0	2.5	8.0	4.0	10.5	9.5	---	---	---	---	14.0	11.0
8	5.0	2.5	10.0	5.5	11.0	9.5	---	---	---	---	15.0	10.5
9	5.0	3.0	11.5	7.5	11.0	8.5	---	---	---	---	17.0	12.5
10	3.0	2.0	11.5	9.5	10.5	9.0	---	---	---	---	18.0	13.5
11	2.5	.5	12.0	9.0	12.0	8.5	---	---	---	---	15.5	14.0
12	2.5	.0	12.0	9.5	13.0	9.5	---	---	---	---	16.5	13.5
13	5.0	1.0	12.5	10.5	15.5	11.5	---	---	---	---	17.0	13.0
14	6.5	1.5	12.5	11.0	17.5	10.5	---	---	24.5	20.0	17.5	11.0
15	8.5	4.0	12.0	11.0	17.5	15.0	---	---	23.0	20.5	19.0	14.5
16	10.0	6.0	11.0	9.5	16.5	15.0	---	---	23.5	20.5	18.0	15.5
17	10.5	7.5	10.5	8.5	18.0	14.0	---	---	23.0	19.0	19.5	14.5
18	11.0	8.5	11.5	9.0	16.5	10.5	---	---	23.5	19.5	20.5	15.0
19	9.5	6.5	12.5	10.5	17.5	13.5	---	---	21.0	19.0	19.5	15.5
20	6.5	3.0	13.5	11.5	17.0	14.5	---	---	21.5	17.5	18.5	14.5
21	4.5	2.0	13.5	12.5	18.5	14.0	---	---	21.0	16.5	15.0	11.5
22	6.0	2.5	13.5	12.0	18.0	15.5	---	---	21.5	17.5	14.0	9.0
23	7.5	5.0	14.0	12.0	18.5	14.5	---	---	21.5	19.0	14.0	11.0
24	7.5	5.0	13.5	12.0	19.5	16.0	---	---	20.5	17.5	11.5	7.5
25	6.0	3.5	12.0	10.0	19.5	17.5	---	---	19.5	18.0	9.0	5.0
26	4.5	2.5	11.0	8.5	20.0	16.5	---	---	20.5	15.5	10.0	6.0
27	4.5	1.5	12.0	10.0	20.0	17.0	---	---	21.0	16.5	11.0	7.5
28	6.0	2.5	13.0	11.5	21.0	16.5	---	---	21.0	17.0	10.0	6.0
29	5.0	3.5	15.0	13.0	---	---	---	---	20.0	16.0	10.5	6.5
30	5.5	3.0	16.0	15.0	---	---	31.5	30.0	22.0	15.0	12.0	7.0
31	---	---	16.0	14.0	---	---	40.0	30.0	19.5	16.5	---	---
MONTH	11.0	.0	16.0	4.0	21.0	8.5	40.0	30.0	40.0	15.0	20.5	5.0
YEAR	40.0	.0										

09229500 HENRYS FORK NEAR MANILA, UT

LOCATION.--Lat 41°00'45", long 109°40'20", in NW¼NW¼ sec.23, T.12 N., R.109 W., Sweetwater County, WY, Hydrologic Unit 14040106, on right bank 0.8 mi north of Wyoming-Utah State line, 1.3 mi upstream from normal high-water line of Flaming Gorge Reservoir at elevation 6,045 ft, and 3.0 mi northeast of Manila, UT.

DRAINAGE AREA.--520 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1971, published as "at Linwood, UT."

REVISED RECORDS.--WSP 1443: 1955. WDR WY-76-2: 1970.

GAGE.--Water-stage recorder. Altitude of gage is 6,060 ft, from topographic map. Prior to Oct. 1, 1957, nonrecording gages or water-stage recorder at several sites about 2.0 mi downstream at various datums. Oct. 1, 1957, to Dec. 2, 1965, water-stage recorders at sites about 1.0 mi upstream at different datums.

REMARKS.--Records fair except those for November to April, which are poor. Peoples Irrigation Canal diverts 5.9 mi upstream. Natural flow of stream affected by transbasin diversions, small storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--56 years, 85.6 ft^3/s, 62,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 6,750 ft^3/s, Aug. 3, 1936, gage height, 7.19 ft, site and datum then in use, from floodmarks, from rating curve extended above 570 ft^3/s on basis of slope-area measurement of peak flow; higher discharge occurred July 15, 1959, gage height, 9.42 ft, site and datum then in use, discharge not determined; no flow for several days in 1933-35, 1939-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s, May 24, gage height, 6.50 ft; minimum daily, 55 ft^3/s, Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	139	90	104	96	65	81	107	943	229	391	119
2	306	145	102	94	100	70	80	134	689	204	399	114
3	490	135	96	100	100	71	77	154	554	178	343	113
4	325	129	108	110	110	71	80	148	495	158	272	106
5	196	126	100	118	100	63	90	130	427	134	250	98
6	177	127	92	118	105	64	100	112	383	128	227	106
7	141	123	112	110	106	74	100	70	365	139	207	143
8	141	128	124	106	111	79	104	68	314	167	162	119
9	153	122	114	106	100	80	105	76	332	333	142	103
10	160	114	118	106	102	80	80	105	291	226	138	96
11	201	132	118	116	110	82	64	125	300	227	134	92
12	139	142	112	106	116	84	59	141	249	183	143	114
13	125	130	118	111	114	83	86	219	216	137	165	121
14	132	119	110	111	98	83	93	341	176	193	288	107
15	122	115	108	104	99	85	130	598	169	179	261	96
16	118	110	105	96	106	84	219	916	190	138	364	95
17	116	115	103	106	106	83	293	836	199	114	319	92
18	117	118	98	77	90	83	339	726	201	102	228	77
19	113	117	82	80	76	83	388	640	245	92	232	69
20	109	114	73	83	61	85	251	707	227	140	276	85
21	107	113	63	85	58	84	170	1000	217	358	218	144
22	110	105	55	90	61	84	160	1150	174	365	176	158
23	106	108	60	97	63	84	194	1090	151	266	170	122
24	108	103	79	104	59	85	251	1310	162	563	190	132
25	118	110	100	116	65	84	257	1330	168	253	186	160
26	110	108	116	116	64	84	158	905	172	239	252	185
27	109	88	112	116	63	83	132	754	155	364	203	194
28	119	90	86	114	64	81	164	689	154	313	158	162
29	119	103	90	114	65	82	140	658	147	267	139	155
30	122	80	108	99	---	76	96	715	168	310	122	147
31	128	---	118	90	---	68	---	806	---	278	114	---
TOTAL	4806	3508	3070	3203	2568	2447	4541	16760	8633	6977	6869	3624
MEAN	155	117	99.0	103	88.6	78.9	151	541	288	225	222	121
MAX	490	145	124	118	116	85	388	1330	943	563	399	194
MIN	106	80	55	77	58	63	59	68	147	92	114	69
AC-FT	9530	6960	6090	6350	5090	4850	9010	33240	17120	13840	13620	7190

CAL YR 1983 TOTAL 100654 MEAN 276 MAX 2000 MIN 39 AC-FT 199600
WTR YR 1984 TOTAL 67006 MEAN 183 MAX 1330 MIN 55 AC-FT 132900

09229500 HENRYS FORK NEAR MANILA, UT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1951 to September 1979.
WATER TEMPERATURES: March 1951 to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 25...	1030	116	1020	4.0	500	110	55	42	.8	5.9
DEC 08...	1220	134	930	.5	430	93	47	37	.8	4.8
JAN 13...	1000	109	988	.0	470	110	47	44	.9	5.9
FEB 24...	1250	59	1020	.0	510	120	51	40	.8	5.2
APR 05...	1500	105	989	6.0	410	97	40	50	1	5.8
MAY 15...	1300	624	517	12.0	200	51	18	26	.8	4.0
JUN 15...	1220	170	786	16.0	350	85	34	34	.8	5.5
JUL 20...	1155	130	1120	18.0	530	120	55	43	.8	7.3
AUG 07...	1620	192	954	22.5	440	100	46	38	.8	5.7
SEP 19...	0940	66	1200	13.0	620	140	65	51	.9	6.9

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	210	330	18	.40	17	700	.96	221	.000	.000
DEC 08...	220	270	17	.30	16	620	.84	223	.100	.280
JAN 13...	230	310	16	.30	18	690	.94	203	1.10	.000
FEB 24...	240	340	18	.40	17	740	1.0	117	.200	.020
APR 05...	220	270	21	.20	12	630	.85	178	.500	.030
MAY 15...	150	110	11	.20	13	320	.44	544	.200	.060
JUN 15...	170	220	14	.30	16	510	.69	234	.100	.040
JUL 20...	230	360	16	.30	21	760	1.0	267	.000	.010
AUG 07...	200	300	14	.30	20	640	.88	334	.000	.020
SEP 19...	210	460	25	.30	24	900	1.2	160	.000	.000

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
JUL 20...	1155	.02	<.01	<.01	<.01	<.010	<.010
AUG 07...	1620	.01	<.01	<.01	<.01	<.010	<.010
SEP 19...	0940	.08	<.01	<.01	<.01	<.010	<.010

09234400 FLAMING GORGE RESERVOIR AT FLAMING GORGE DAM, UT

LOCATION.--Lat 40°54'23", long 109°25'15", in NW¼NE¼ sec.15, T.2 N., R.22 E., Daggett County, Hydrologic Unit 14040106, at Flaming Gorge Dam on Green River, 1.8 mi southwest of Dutch John, and 4.9 mi northeast of Greendale.

DRAINAGE AREA.--19,350 mi², approximately, of which about 4,260 mi², including 3,959 mi² in Great Divide Basin in southern Wyoming, is probably noncontributing.

PERIOD OF RECORD.--November 1962 to current year.

REVISED RECORDS.--WDR UT-76-1: Drainage area.

GAGE.-- Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Jan. 1, 1964, on left bank 600 ft upstream from face of dam.

REMARKS.--Records excellent. Reservoir is formed by concrete arch-type dam; storage began Nov. 1, 1962; mass concrete of dam completed Nov. 15, 1962. Total capacity, 3,789,000 acre-ft, consisting of the following: Dead storage, 39,700 acre-ft below elevation 5,740 ft; inactive storage, 233,500 acre-ft between elevations 5,740 ft and 5,871 ft; usable contents, 3,516,000 acre-ft between elevations 5,871 ft and 6,040 ft, top of conservation pool. Reservoir is used for flood control, storage replacement to meet downstream requirements under the Colorado River Compact of 1922, and power development. Figures given herein represent usable contents. Table of daily values rounded to 3 significant figures. Transbasin diversions and diversions for irrigation above station.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,911,000 acre-ft, July 13, 1983, elevation, 6,043.80 ft; minimum, 582,900 acre-ft, Apr. 26, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,738,000 acre-ft, Aug. 6-8, elevation, 6,039.74 ft; minimum observed, 3,009,000 acre-ft, May 13, elevation, 6,020.92 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

6,020	2,977,000	6,035	3,543,000
6,025	3,157,000	6,040	3,749,000
6,030	3,346,000		

RESERVOIR STORAGE, IN THOUSANDS OF AC-FT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3670	3620	3560	3450	3300	3150	3050	3070	3290	3620	3730	3710
2	3670	3620	3550	3440	3290	3140	3050	3070	3300	3630	3730	3710
3	3670	3610	3550	3440	3290	3140	3050	3070	3320	3650	3730	3710
4	3660	3610	3550	3440	3280	3130	3050	3070	3330	3660	3730	3710
5	3660	3610	3550	3430	3280	3120	3050	3060	3350	3670	3740	3710
6	3660	3610	3550	3430	3270	3120	3050	3050	3360	3680	3740	3710
7	3650	3610	3540	3420	3270	3110	3050	3040	3370	3690	3740	3700
8	3650	3600	3540	3420	3260	3110	3050	3030	3380	3700	3740	3700
9	3650	3600	3540	3420	3260	3100	3050	3030	3400	3700	3740	3700
10	3650	3600	3540	3410	3250	3100	3050	3020	3410	3710	3740	3700
11	3640	3590	3530	3410	3250	3090	3050	3020	3420	3710	3730	3700
12	3640	3590	3530	3400	3240	3090	3040	3010	3430	3710	3730	3700
13	3640	3590	3520	3400	3230	3080	3040	3010	3440	3710	3730	3700
14	3640	3590	3520	3390	3230	3080	3040	3010	3450	3710	3720	3700
15	3640	3580	3520	3390	3220	3080	3040	3030	3460	3710	3720	3700
16	3630	3580	3510	3380	3220	3070	3040	3030	3460	3710	3720	3700
17	3630	3580	3510	3380	3210	3070	3040	3040	3480	3710	3720	3700
18	3630	3580	3510	3370	3210	3070	3040	3050	3480	3710	3720	3700
19	3620	3580	3500	3370	3200	3070	3040	3070	3490	3710	3720	3690
20	3620	3580	3490	3360	3200	3070	3040	3080	3500	3710	3720	3690
21	3620	3580	3490	3360	3190	3070	3040	3100	3510	3710	3720	3690
22	3620	3580	3480	3350	3190	3070	3040	3110	3520	3710	3720	3690
23	3630	3570	3480	3350	3180	3060	3040	3130	3530	3710	3720	3690
24	3630	3570	3470	3340	3180	3060	3050	3150	3540	3710	3720	3690
25	3620	3570	3470	3340	3170	3060	3050	3170	3550	3710	3710	3690
26	3620	3570	3460	3330	3170	3060	3050	3190	3560	3710	3720	3690
27	3620	3570	3460	3330	3160	3060	3060	3210	3570	3710	3720	3690
28	3620	3570	3460	3320	3160	3060	3060	3230	3580	3710	3710	3690
29	3620	3560	3450	3320	3150	3060	3070	3250	3600	3720	3710	3690
30	3620	3560	3450	3310	---	3060	3070	3260	3610	3720	3710	3690
31	3620	---	3450	3310	---	3050	---	3280	---	3720	3710	---
MAX	3670	3620	3560	3450	3300	3150	3070	3280	3610	3720	3740	3710
MIN	3620	3560	3450	3310	3150	3050	3040	3010	3290	3620	3710	3690
(†)	6036.87	6035.45	6032.70	6028.93	6024.83	6022.18	6022.54	6028.28	6036.66	6039.38	6039.08	6038.46
(‡)	-57	-58	-110	-146	-154	-97	+13	+213	+331	+112	-13	-25

CAL YR 1983 . . . . . (‡) +144
WTR YR 1984 . . . . . (‡) +9

(†) Elevation, in feet, at end of month.
(‡) Change in contents, in thousands of acre-feet.

09234500 GREEN RIVER NEAR GREENDALE, UT

LOCATION.--Lat 40°54'30", long 109°25'20", in NW¼NW¼SE¼ sec.15, T.2 N., R.22 E., Daggett County, Hydrologic Unit 14040106, Ashley National Forest, on right bank 0.5 mi downstream from Flaming Gorge Dam, 2 mi south of Dutch John, 4 mi northeast of Greendale, and 407.0 mi from mouth.

DRAINAGE AREA.--19,350 mi², approximately, of which about 4,260 mi² is probably noncontributing. This noncontributing area includes 3,959 mi² in Great Divide Basin in southern Wyoming.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WDR UT-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,594.48 ft, National Geodetic Vertical Datum of 1929. Prior to Sept. 2, 1959, water-stage recorder at site 2.2 mi upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Flaming Gorge Reservoir 0.5 mi upstream beginning Nov. 1, 1962 (see sta 09234400).

AVERAGE DISCHARGE.--34 years, 2,128 ft³/s, 1,542,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s, June 12, 1957, gage height, 10.60 ft, site and datum then in use; maximum gage height, 12.58 ft, July 8, 1983; minimum, 2.3 ft³/s, Mar. 20, 22, 27, 28, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,640 ft³/s, May 7, gage height, 9.54 ft; minimum daily, 750 ft³/s, Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTFMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3230	4050	3150	3070	4160	4190	4100	4800	2820	1680	4130	2460
2	3890	3620	2540	3600	4180	4180	3130	5110	3370	1870	4140	1920
3	3890	3040	2300	3480	4170	3510	2790	5760	2550	2260	4210	2420
4	3840	2460	3670	3290	3880	4170	2800	6530	2120	2020	4170	2540
5	3790	3260	2380	3950	4150	4110	2800	7980	2970	2800	4210	2110
6	3370	3380	2040	4110	4170	4170	3460	8130	2760	3390	4180	2700
7	3810	3690	2140	2590	4200	4170	4060	8430	2850	3160	4160	2440
8	3510	3660	2550	3710	4260	4180	4160	8410	3080	3310	4160	2360
9	3550	3800	3380	3570	4280	4180	3450	7780	2650	3100	4160	2280
10	3100	3920	3210	3570	4280	4190	4200	6890	2790	3260	4120	1920
11	3720	3270	3580	3980	4180	4180	4220	6660	2100	3690	4110	2170
12	3290	3700	3220	3900	4170	4180	4230	8250	2240	4240	4120	2130
13	3700	3610	3080	3680	4120	4190	4210	8310	2080	4120	4040	2560
14	3770	3620	3070	3520	4030	4190	4230	6410	2440	4200	3900	2580
15	3360	3550	3580	3980	4100	4190	4230	4170	2480	4240	3200	1930
16	3830	3070	3710	4010	4050	4190	4230	4150	2540	4240	3340	1410
17	3630	3560	3680	4050	4130	4130	4240	4080	1610	4200	3490	1990
18	3810	2410	4110	3940	3920	4080	4230	4100	1790	4160	2720	2370
19	3630	3270	4170	3950	3990	3080	4230	4000	2000	4020	3010	2670
20	3590	2850	3780	3980	3430	2840	4230	3990	1910	3880	2950	2980
21	2780	3000	3910	3680	4180	2840	4230	3520	2110	3880	2900	2780
22	1110	2800	3860	3840	4170	2830	4230	4150	1670	3870	3160	1280
23	750	2570	3660	3690	4140	3550	4190	4150	2140	3870	3060	1830
24	2780	1810	3220	4040	4170	3870	3930	4120	2310	3690	3110	2540
25	3850	2410	3880	4180	3910	4180	3920	3790	2060	3660	2870	1970
26	3580	2680	3340	3750	4100	3230	3780	3390	1810	3810	2140	1880
27	3150	3390	3410	3340	4110	2820	3380	3590	1490	4070	2150	2010
28	2650	3100	2660	3340	3870	2820	4100	3570	1930	4240	2930	2160
29	1260	3090	3450	4080	4100	2830	4150	3550	2050	4190	2520	1780
30	793	2770	2580	3910	---	3570	4190	3370	2120	4090	2620	2340
31	2920	---	1450	4130	---	4140	---	3450	---	4120	2280	---
TOTAL	97933	95410	98760	115910	118600	116980	117330	164590	68840	111330	106260	66510
MEAN	3159	3180	3186	3739	4090	3774	3911	5309	2295	3591	3428	2217
MAX	3890	4050	4170	4180	4280	4190	4240	8430	3370	4240	4210	2980
MIN	750	1810	1450	2590	3430	2820	2790	3370	1490	1680	2140	1280
AC-FT	194300	189200	195900	229900	235200	232000	232700	326500	136500	220800	210800	131900

CAL YR 1983 TOTAL 1529153 MEAN 4189 MAX 12300 MIN 750 AC-FT 3033000
WTR YR 1984 TOTAL 1278453 MEAN 3493 MAX 8430 MIN 750 AC-FT 2536000

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to September 1959, October 1963 to current year, once-daily.
WATER TEMPERATURES: October 1956 to September 1959, October 1963 to current year, once-daily.
SEDIMENT DATA: October 1956 to September 1959, once-daily, October 1976 to current year, periodically.

REMARKS.--Storage in Flaming Gorge Reservoir began on Nov. 1, 1962. Extremes are given for two separate periods--water years 1957-62, and water years 1964 to current year. Extremes for the 1963 water year (October 1962 to September 1963) are not included. Unpublished daily records of specific conductance obtained before 1965 were included in the determination of extremes for period of daily record and are available in the files of Utah district office.

EXTREMES FOR PERIOD OF DAILY RECORD (water years 1957-62, 1964 to current year).--
SPECIFIC CONDUCTANCE (water years 1957-58, 1960-62): Maximum daily, 1,340 micromhos Aug. 30, 1961; minimum daily, 325 micromhos June 2, 1961.
WATER TEMPERATURES (water years 1957-59): Maximum, 24.0°C July 24, 25, 1959; minimum, 0.0°C on many days during winter period each year.
SPECIFIC CONDUCTANCE (water years 1964 to current year): Maximum daily, 1,060 micromhos Nov. 9, 1971; minimum daily, 560 micromhos Mar. 1, 1977.
WATER TEMPERATURES (water years 1964 to current year): Maximum, 15.0°C, July 25 to Aug. 5, Aug. 8-11, 1983; minimum, 2.0°C on several days in 1964.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 720 micromhos, May 10, 11, Aug. 27-31, Sept. 5, 13; minimum observed, 560 micromhos, June 21.
WATER TEMPERATURES: Maximum observed, 15.0°C, Sept. 18; minimum observed, 3.5°C, Feb. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 28...	1330	3900	650	8.2	11.5	--	7.7	86	220	55	21
NOV 16...	1545	3890	620	8.2	10.0	.30	8.1	87	230	59	21
DEC 12...	1415	3870	640	8.1	7.0	--	8.8	89	240	60	21
JAN 17...	1415	4010	640	8.0	4.0	.80	9.0	84	240	61	22
FEB 14...	1230	4100	640	8.0	3.5	--	10.2	95	240	58	22
MAR 14...	1100	4200	680	8.0	4.0	.90	8.8	83	240	60	22
APR 23...	1430	4100	660	7.9	5.0	--	9.1	87	240	59	23
MAY 15...	1300	4210	630	8.0	6.0	2.5	9.8	96	230	57	22
JUN 21...	0730	960	560	8.0	10.0	--	8.4	90	200	52	18
JUL 17...	1400	4240	640	7.9	12.5	1.6	8.6	98	210	50	20
AUG 15...	1100	3370	660	8.1	13.0	--	8.2	94	230	56	22
SEP 18...	1230	1600	680	8.3	15.0	1.5	--	--	230	56	23

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
28...	49	1	2.3	153	170	13	.20	6.1	391	410
NOV										
16...	47	1	2.5	153	170	14	.30	6.2	417	410
DEC										
12...	49	1	2.1	153	180	14	.30	6.3	415	420
JAN										
17...	51	1	2.4	152	190	15	.20	6.1	428	440
FEB										
14...	49	1	2.5	161	170	13	.30	6.5	424	420
MAR										
14...	49	1	2.5	159	180	13	.40	6.7	423	430
APR										
23...	50	1	2.3	160	180	15	.30	6.5	446	430
MAY										
15...	48	1	2.2	148	170	15	.30	6.7	408	410
JUN										
21...	39	1	2.4	134	140	12	.20	6.3	356	350
JUL										
17...	46	1	2.4	134	160	14	.20	5.3	370	380
AUG										
15...	51	2	2.5	147	170	16	.20	4.2	411	410
SEP										
18...	54	2	2.3	151	180	18	.30	4.4	442	430

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	BORON, DIS-SOLVED (UG/L AS B)
OCT										
28...	.53	4120	.070	.09	--	--	--	<.010	--	80
NOV										
16...	.57	4380	.070	.09	.70	<.010	<.010	.020	.06	--
DEC										
12...	.56	4340	<.010	--	--	--	--	.010	.03	70
JAN										
17...	.58	4630	.070	.09	<.20	<.010	<.010	.010	.03	--
FEB										
14...	.58	4690	.160	.21	--	--	--	.010	.03	70
MAR										
14...	.58	4800	.080	.10	.20	.010	.010	.020	.06	--
APR										
23...	.61	4940	.080	.10	--	--	--	.030	.09	80
MAY										
15...	.55	4640	.060	.08	.30	.010	.010	.020	.06	--
JUN										
21...	.48	923	.030	.04	--	--	--	.010	.03	60
JUL										
17...	.50	4240	.080	.10	.50	.020	.010	.020	.06	--
AUG										
15...	.56	3740	.030	.04	--	--	--	<.010	--	80
SEP										
18...	.60	1910	.040	.05	.50	.010	.010	<.010	--	--

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV									
16...	1545	75	<1	<1	<3	4	4	2	25
MAR									
14...	1100	71	<1	<1	<3	4	3	1	21
MAY									
15...	1300	74	<1	<1	<3	3	7	2	27
JUL									
17...	1400	76	<1	<1	<3	5	6	<1	22

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV									
16...	1	.1	<10	2	1	<1	550	<6	10
MAR									
14...	<1	<.1	<10	3	<1	<1	560	<6	24
MAY									
15...	3	<.1	<10	4	<1	<1	560	<6	8
JUL									
17...	<1	1.3	<10	12	1	<1	510	<6	19

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	630	670	---	670	670	---	660	650	---	680	---
2	---	---	670	---	680	670	680	670	---	620	680	---
3	630	---	---	680	680	---	680	670	---	590	680	---
4	620	---	---	700	---	---	680	670	610	---	---	710
5	630	---	660	670	---	680	680	---	610	600	---	720
6	630	---	680	680	670	670	---	---	620	590	680	710
7	630	640	660	---	680	670	---	660	610	---	680	700
8	---	620	640	---	680	670	---	660	620	---	680	---
9	---	630	660	680	680	670	680	660	---	590	680	---
10	---	630	---	690	670	---	690	720	---	600	680	700
11	610	---	---	690	---	---	680	720	600	600	---	700
12	610	---	670	680	---	680	680	---	590	600	---	710
13	620	---	690	680	670	680	670	---	600	600	680	720
14	620	620	670	---	680	670	---	660	590	---	680	710
15	---	620	680	---	670	680	---	650	590	---	690	---
16	---	620	680	690	680	670	710	670	---	620	690	---
17	630	620	---	680	680	---	710	660	---	630	690	700
18	620	670	---	700	---	---	700	640	600	630	---	700
19	610	---	690	680	---	670	700	---	590	630	---	700
20	620	---	690	700	---	680	700	---	580	640	700	700
21	620	620	680	---	680	680	---	650	580	---	700	700
22	---	630	680	---	670	680	---	650	580	---	700	---
23	---	620	670	---	670	680	700	640	---	650	700	---
24	620	---	---	---	680	---	700	650	---	640	700	690
25	620	630	---	---	---	---	700	650	580	650	---	700
26	610	---	---	---	---	680	700	---	580	660	---	700
27	620	---	680	680	680	670	710	---	590	650	720	700
28	620	620	680	---	660	680	---	---	580	---	720	700
29	---	620	680	---	680	680	---	650	590	---	720	---
30	---	620	680	690	---	680	690	660	---	680	720	---
31	610	---	---	680	---	---	---	650	---	680	720	---

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	12.0	9.0	---	5.0	5.0	---	5.5	9.5	---	14.0	---
2	---	---	9.0	---	5.0	5.0	5.0	5.5	---	11.5	14.5	---
3	13.0	---	---	5.5	5.0	---	5.0	6.5	---	13.5	14.5	---
4	13.0	---	---	5.5	---	---	5.0	6.5	9.5	---	---	14.5
5	13.0	---	9.0	5.5	---	5.0	5.0	---	9.5	13.0	---	14.0
6	13.0	---	9.0	5.5	5.0	5.0	---	---	9.5	40	14.5	14.0
7	13.0	11.5	8.0	---	5.0	5.0	---	6.5	9.5	---	14.5	14.5
8	---	12.0	8.0	---	5.0	5.0	---	6.5	10.0	---	14.5	---
9	---	12.0	8.0	5.5	5.0	5.0	5.0	6.5	---	13.0	14.5	---
10	---	11.0	---	5.5	5.0	---	5.0	5.0	---	13.0	14.5	14.5
11	13.5	---	---	5.5	---	---	5.0	5.0	10.0	13.0	---	14.5
12	13.5	---	8.0	5.5	---	5.0	5.0	---	10.5	13.0	---	14.5
13	13.0	---	8.0	5.5	5.0	5.0	5.0	---	10.5	13.0	14.5	14.0
14	13.0	11.0	8.0	---	5.0	5.0	---	6.5	10.5	---	14.5	14.0
15	---	11.0	7.0	---	5.0	5.0	---	6.5	10.5	---	14.0	---
16	---	10.5	7.0	5.5	5.0	5.0	5.0	6.5	---	13.5	14.0	---
17	13.0	10.5	---	5.5	5.0	---	5.0	7.0	---	13.5	14.0	14.0
18	13.0	10.5	---	5.5	---	---	5.0	7.0	10.5	13.5	---	14.5
19	13.0	---	7.0	5.0	---	5.0	5.0	---	11.0	13.5	---	14.0
20	13.0	---	7.0	5.0	---	5.0	5.0	---	11.0	13.5	14.0	14.0
21	13.0	10.0	7.0	---	5.0	5.0	---	8.0	11.0	---	14.5	14.0
22	---	10.0	7.0	---	5.0	5.0	---	8.5	11.0	---	14.5	---
23	---	10.0	7.0	---	5.0	5.0	5.0	8.5	---	13.0	14.5	---
24	13.0	---	---	---	5.0	---	5.0	8.5	---	13.5	14.5	14.0
25	12.0	9.5	---	---	---	---	5.0	8.5	11.5	13.5	---	14.0
26	12.0	---	---	---	---	5.0	5.0	---	11.5	13.0	---	14.0
27	12.0	---	6.0	5.0	5.0	5.0	5.0	---	11.0	13.5	14.0	13.5
28	12.0	9.5	5.5	---	5.0	5.0	---	---	12.0	---	14.5	13.5
29	---	9.0	5.5	---	5.0	5.0	---	8.5	12.0	---	14.0	---
30	---	9.0	5.5	5.0	---	5.0	5.0	8.5	---	13.5	14.0	---
31	12.0	---	---	5.0	---	---	---	9.5	---	13.5	14.0	---

09253000 LITTLE SNAKE RIVER NEAR SLATER, CO

LOCATION.--Lat 40°59'58", long 107°08'34", in SW¼NW¼ sec.15, T.12 N., R.87 W., Routt County, Hydrologic Unit 14050003, on left bank just downstream from highway bridge at Focus Ranch, 0.2 mi downstream from Spring Creek, and 12 mi east of Slater.

DRAINAGE AREA.--285 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to September 1947, October 1950 to current year.

REVISED RECORDS.--WSP 1733: 1960.

GAGE.--Water-stage recorder. Datum of gage is 6,831.00 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 2,000 acres above station.

AVERAGE DISCHARGE.--39 years, 237 ft³/s, 171,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft³/s, May 23, 1984, gage height, 8.78 ft; maximum gage height 8.95 ft, Apr. 25, 1974; minimum daily discharge , 8.6 ft³/s, Sept. 10, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 23	2300	*4,780	*8.78	June 15	2300	2,410	7.20

Minimum daily discharge, 25 ft³/s, Nov. 28-30, Dec. 1-3, 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	66	25	30	35	40	56	187	3380	1070	144	69
2	70	64	25	30	35	40	56	198	2850	989	129	62
3	98	64	25	35	35	40	54	208	2700	912	109	50
4	79	61	30	40	35	45	54	235	2670	842	91	46
5	85	59	30	45	35	45	58	265	2720	774	100	41
6	83	59	25	40	35	40	72	244	2550	709	103	39
7	76	58	25	40	35	40	85	222	2460	657	88	55
8	68	50	25	40	35	40	89	264	2070	637	75	64
9	65	45	25	40	35	45	100	465	1940	741	73	52
10	75	45	30	40	40	50	92	959	1680	676	67	43
11	88	40	30	40	40	55	93	1520	1650	493	64	54
12	74	40	30	40	40	55	86	1850	1630	425	64	142
13	65	40	30	40	40	60	87	2210	1710	419	65	137
14	78	35	30	40	40	59	83	2520	1980	434	68	85
15	83	35	30	35	40	60	90	3100	2190	332	68	61
16	71	40	30	30	40	59	109	3630	2240	289	83	82
17	74	40	30	30	35	55	145	3560	2080	258	71	86
18	97	40	30	30	35	56	226	3100	1950	228	71	61
19	115	35	30	30	35	50	274	2960	1850	206	84	55
20	88	35	30	30	35	52	273	3340	1820	191	145	71
21	80	35	30	30	35	53	233	3630	1800	190	100	124
22	75	35	30	30	35	54	211	3430	1770	197	74	155
23	74	30	30	35	35	55	231	3630	1640	170	72	85
24	73	30	30	35	40	55	270	3960	1540	159	65	77
25	63	30	30	35	40	59	300	3370	1460	155	65	109
26	65	30	30	35	40	66	244	2750	1360	143	67	115
27	65	30	30	35	40	65	207	2760	1280	129	57	126
28	63	25	30	35	40	62	185	2600	1220	133	52	96
29	62	25	30	40	40	57	174	2660	1180	124	50	78
30	58	25	30	35	---	57	167	2910	1140	136	46	76
31	62	---	30	35	---	57	---	3060	---	125	44	---
TOTAL	2313	1246	895	1105	1080	1626	4404	65797	58510	12943	2454	2396
MEAN	74.6	41.5	28.9	35.6	37.2	52.5	147	2122	1950	418	79.2	79.9
MAX	115	66	30	45	40	66	300	3960	3380	1070	145	155
MIN	41	25	25	30	35	40	54	187	1140	124	44	39
AC-FT	4590	2470	1780	2190	2140	3230	8740	130500	116100	25670	4870	4750

CAL YR 1983 TOTAL 139323 MEAN 382 MAX 3310 MIN 25 AC-FT 276300
WTR YR 1984 TOTAL 154769 MEAN 423 MAX 3960 MIN 25 AC-FT 307000

09253000 LITTLE SNAKE RIVER NEAR SLATER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 06...	1155	83	143	7.5	59	18	3.4	4.6	.3	.80
APR 19...	1450	259	157	6.0	72	21	4.8	6.0	.3	.80
MAY 31...	1435	2650	58	8.0	19	7.7	.00	2.0	.2	.00
JUL 10...	0930	770	64	10.0	31	8.7	2.2	1.2	.0	.50
AUG 21...	1215	100	161	15.0	64	18	4.6	8.2	.5	.50
SEP 19...	1045	53	179	11.0	75	21	5.4	8.7	.5	.70

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 06...	62	10	2.6	.10	15	92	.12	21	.00	.030
APR 19...	65	8.9	4.2	.20	17	100	.14	71	.40	.410
MAY 31...	24	.0	.40	.10	11	36	.05	255	.00	.060
JUL 10...	30	1.8	.60	.10	9.7	43	.06	89	.00	.010
AUG 21...	76	7.9	2.2	.20	15	100	.14	28	.00	.000
SEP 19...	75	9.6	10	.10	15	120	.16	17	.00	.020

09255000 SLATER FORK NEAR SLATER, CO

LOCATION.--Lat 40°58'57", long 107°22'56", in SW¼NE¼ sec.21, T.12 N., R.89 W., Moffat County, Hydrologic Unit 14050003, on right bank 15 ft downstream from highway bridge, 1.0 mi upstream from mouth, and 1.5 mi south of Slater.

DRAINAGE AREA.--161 mi².

PERIOD OF RECORD.--May to October, December 1910, March to October 1911, and April to May 1912 (published as Slater Creek), July 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 618: 1910-11. WSP 764: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft, from river profile map. May 28, 1910, to May 25, 1912, nonrecording gage at site 1.5 mi upstream at different datum. July 9, 1931, to May 6, 1932, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Records poor. No gage-height record May 8 to July 9. Diversions for irrigation of about 500 acres above station.

AVERAGE DISCHARGE.--53 years (water years 1932-84), 77.0 ft³/s, 55,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s, May 16, 1984, gage height, 11.78 ft (from floodmark), from rating curve extended above 1,000 ft³/s; no flow Aug. 2-10, 1934, Aug. 18, 25-27, 1936, Aug. 29 to Sept. 3, 1954, Aug. 3, 4, 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 430 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	unknown	*a2,250	*b11.78	June 16	unknown	c700	--

a - from rating curve extended above 1,000 ft³/s.
b - from floodmark.
c - mean daily discharge.

Minimum daily discharge, 20 ft³/s, Dec. 6, Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	39	30	30	35	30	43	117	900	275	76	33
2	85	40	30	30	35	25	43	137	800	250	78	38
3	48	40	30	30	35	25	39	135	750	225	53	29
4	45	37	30	30	35	25	39	150	700	225	46	25
5	45	36	25	35	35	20	44	154	700	200	41	23
6	42	36	20	30	35	25	62	126	650	200	47	22
7	39	35	25	30	35	25	80	105	600	200	41	25
8	35	30	30	30	35	25	91	120	550	200	35	31
9	33	30	30	30	35	30	106	250	550	225	29	25
10	47	30	30	30	35	30	77	400	500	189	25	22
11	58	30	30	35	35	35	73	700	500	136	23	24
12	43	30	30	35	30	36	63	800	550	110	21	104
13	35	30	30	30	30	35	60	900	550	101	21	100
14	45	30	30	30	30	40	60	1100	600	100	21	62
15	55	25	30	30	30	36	76	1300	650	90	23	44
16	43	30	30	25	30	41	111	1500	700	76	37	52
17	43	35	30	30	30	31	170	1400	650	67	59	58
18	50	35	30	25	30	42	281	1300	600	59	33	43
19	82	30	30	25	30	34	276	1200	550	54	29	40
20	56	30	30	30	25	38	221	1250	500	49	61	64
21	47	30	30	30	30	43	138	1300	450	46	56	99
22	43	30	30	35	30	47	117	1200	450	46	41	137
23	41	30	30	35	30	40	129	1400	425	54	35	82
24	42	30	30	30	30	50	193	1300	400	53	34	66
25	40	35	30	30	30	46	280	1200	375	89	36	76
26	40	30	30	30	30	42	156	1000	350	79	38	83
27	38	30	35	30	25	44	119	1000	350	56	31	77
28	36	30	35	30	25	43	104	900	325	61	28	63
29	35	30	35	30	30	41	100	800	300	46	27	54
30	33	25	30	30	---	42	95	800	275	56	24	50
31	34	---	30	35	---	45	---	800	---	64	23	---
TOTAL	1447	958	925	945	910	1111	3446	24844	16250	3681	1172	1651
MEAN	46.7	31.9	29.8	30.5	31.4	35.8	115	801	542	119	37.8	55.0
MAX	89	40	35	35	35	50	281	1500	900	275	78	137
MIN	33	25	20	25	25	20	39	105	275	46	21	22
AC-FT	2870	1900	1830	1870	1800	2200	6840	49280	32230	7300	2320	3270

CAL YR 1983 TOTAL 50597 MEAN 139 MAX 1100 MIN 16 AC-FT 100400
WTR YR 1984 TOTAL 57340 MEAN 157 MAX 1500 MIN 20 AC-FT 113700

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE¼NW¼ sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, on left bank 200 ft upstream from highway bridge, 1,000 ft upstream from Willow Creek, and 0.8 mi west of Dixon.

DRAINAGE AREA.--988 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1910 to September 1923, March 1938 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1920(M).

GAGE.--Water-stage recorder. Datum of gage is 6,331.22 ft, National Geodetic Vertical Datum of 1929. May 27, 1910, to Sept. 30, 1923, nonrecording gage on highway bridge 200 ft downstream at datum 2.98 ft higher. Mar. 15, 1938, to Sept. 30, 1957, water-stage recorder at site 225 ft downstream at datum 2.98 ft higher; Oct. 1, 1957, to June 6, 1968, at site 850 ft downstream at present datum, and June 7 to Sept. 30, 1968, at site 225 ft downstream at present datum.

REMARKS.--Records fair. No gage-height record Aug. 3 to Sept. 30. Diversions for irrigation of about 9,500 acres above station. One diversion above station for irrigation of about 3,000 acres below. Transbasin diversions above station.

AVERAGE DISCHARGE.--46 years (water years 1911-23, 1939-71), 514 ft³/s, 372,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s, May 16, 1984, gage height, 13.56 ft, result of dam failure; no flow Sept. 19, 20, 22, 1977, Aug. 7, 17, 18, 27-29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	1000	*a14,700	*13.56
June 16	1900	5,310	9.79

a - result of dam failure.

Minimum daily discharge during period of operation, 100 ft³/s, Sept. 5, 6, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							300	1360	7100	2900	378	160
2							300	1220	6450	2700	374	160
3							300	1240	5570	2500	310	130
4							300	1260	5960	2400	289	110
5							300	1400	5790	2200	300	100
6							400	1230	6180	2100	300	100
7							500	1240	6640	1900	280	130
8							500	1210	5060	1700	270	150
9							650	1820	4630	1600	270	120
10							600	3330	3970	1400	250	100
11							600	4830	3550	1190	230	120
12							550	6090	3470	1040	230	230
13							550	8250	3460	910	230	230
14							500	9780	4060	934	230	230
15							550	8840	4720	786	230	160
16							650	10400	4960	696	230	210
17							850	9180	4550	629	230	220
18							1500	7870	4110	547	230	160
19							1600	6570	3900	471	230	150
20							1690	7630	3820	442	250	200
21							1220	8680	3730	416	264	230
22							1290	7600	3770	414	190	230
23							1220	8240	3450	409	170	230
24							1360	9730	3130	395	160	220
25							1970	9240	3000	397	160	230
26							1280	9400	2720	387	160	230
27							1300	9000	3500	339	140	230
28							1450	8500	3400	328	140	230
29							1440	8000	3200	316	140	210
30							1510	8000	3000	325	120	200
31							---	7500	---	371	120	---
TOTAL							27230	188640	130850	33142	7105	5410
MEAN							908	6085	4362	1069	229	180
MAX							1970	10400	7100	2900	378	230
MIN							300	1210	2720	316	120	100
AC-FT							54010	374200	259500	65740	14090	10730

BEST COPY AVAILABLE

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT 06...	1630	146	272	8.4	13.0	9.0	--	130	38	7.9	8.8	.4
APR 20...	1345	1650	308	8.0	3.0	10.5	100	140	37	11	15	.6
JUN 01...	1145	7130	124	8.1	8.5	8.5	92	55	17	3.0	5.0	.3
JUL 10...	1415	915	174	8.3	19.5	6.8	94	77	21	6.0	4.9	.3
AUG 21...	1725	239	267	8.6	20.0	8.2	114	130	36	8.8	12	.5
SEP 19...	1600	187	310	8.6	18.0	8.2	109	150	41	11	12	.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	2.4	120	27	4.0	.20	17	180	.24	70	.00	.060
APR 20...	1.6	110	50	12	.20	14	210	.28	921	.30	.100
JUN 01...	.00	59	4.0	2.8	.10	11	78	.11	1510	.10	.080
JUL 10...	1.2	75	15	1.8	.00	13	110	.15	266	.00	.010
AUG 21...	2.1	110	29	3.8	.20	16	170	.24	112	.00	.000
SEP 19...	1.4	130	34	4.2	.20	15	200	.27	99	.00	.020

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
OCT 06...	1630	146	13.0	<.01	<.01	<.01	<.01	<.010	<.010
JUN 01...	1145	7130	8.5	<.01	<.01	<.01	<.01	<.010	<.010
AUG 21...	1725	239	20.0	<.01	<.01	<.01	<.01	<.010	<.010
SEP 19...	1600	187	18.0	<.01	<.01	<.01	<.01	<.010	<.010

09258000 WILLOW CREEK NEAR DIXON, WY

LOCATION.--Lat 40°54'56", long 107°31'16", on line between secs.8 and 17, T.11 N., R.90 W., Moffat County, CO, Hydrologic Unit 14050003, on right bank 6.2 mi south of Colorado-Wyoming State line, 8.0 mi upstream from mouth, and 8.3 mi south of Dixon.

DRAINAGE AREA.--24 mi^2, approximately.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,700 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Oct. 7 to Mar. 8, which are poor. One small ditch diverts water above station for irrigation. Regulation by Elk Lake, capacity, 400 acre-ft.

AVERAGE DISCHARGE.--31 years, 10.5 ft^3/s, 7,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 476 ft^3/s, May 10, 1984, gage height, 6.02 ft, from rating curve extended above 160 ft^3/s; maximum gage height, 7.08 ft, Apr. 18, 1984 (backwater from ice); no flow Sept. 17-19, 1955, for many days July to September 1977, and Aug. 8-16, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 18	1730	--	*a7.08	May 10	2025	*476	6.02
Apr. 19	----	b100	--	June 1	0330	209	4.56
Apr. 25	0150	368	5.61	June 5	1700	261	4.89
May 3	2025	199	4.67	June 15	1630	106	3.86

a - backwater from ice.
b - mean daily discharge.

Minimum daily discharge, 2.0 ft^3/s, Aug. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	6.6	4.0	2.5	2.8	3.0	11	52	154	37	13	4.7
2	7.9	6.4	4.0	2.5	2.8	3.0	9.0	76	90	35	11	4.2
3	9.0	6.2	3.9	2.5	2.8	3.1	8.0	76	90	34	5.0	3.5
4	6.6	6.2	3.9	2.5	2.8	3.1	10	67	79	34	3.7	3.3
5	6.9	6.0	3.8	2.5	2.8	3.2	11	83	161	33	3.0	3.1
6	6.4	6.0	3.7	2.5	2.8	3.3	14	38	136	33	2.4	2.9
7	8.0	6.0	3.6	2.5	2.8	3.6	20	26	101	32	2.1	3.3
8	7.5	5.8	3.5	2.5	2.8	4.5	24	62	92	40	2.0	3.9
9	7.0	5.8	3.5	2.5	2.8	5.4	32	180	84	48	2.0	3.1
10	8.0	5.6	3.4	2.5	2.8	5.2	20	280	58	42	2.1	2.9
11	11	5.6	3.4	2.5	2.8	7.3	15	256	53	35	2.2	9.4
12	10	5.6	3.3	2.5	2.8	6.1	13	230	50	30	2.3	19
13	8.0	5.4	3.2	2.5	2.8	5.6	13	208	58	27	2.9	28
14	7.0	5.4	3.2	2.6	2.8	9.0	14	193	75	22	12	9.7
15	10	5.2	3.1	2.6	2.8	6.6	19	180	88	19	8.1	5.6
16	11	5.2	3.0	2.6	2.9	10	25	173	83	18	6.0	12
17	9.0	5.0	3.0	2.6	2.9	6.7	40	116	70	16	5.2	6.5
18	11	5.0	2.9	2.6	2.9	13	70	97	67	14	17	4.7
19	13	4.9	2.9	2.6	2.9	7.6	100	89	71	12	12	12
20	17	4.8	2.8	2.6	2.9	8.4	56	101	73	23	7.0	9.8
21	10	4.7	2.8	2.6	2.9	15	28	105	68	42	6.6	16
22	9.4	4.6	2.8	2.7	2.9	10	23	89	69	27	6.2	13
23	8.6	4.6	2.7	2.7	2.9	9.0	52	99	58	34	5.7	7.2
24	8.4	4.5	2.7	2.7	2.9	17	114	99	56	27	6.1	6.4
25	8.4	4.5	2.7	2.7	2.9	12	166	75	52	21	7.0	14
26	8.2	4.4	2.7	2.7	3.0	9.0	37	70	48	15	10	12
27	8.0	4.3	2.6	2.7	3.0	12	26	76	45	12	5.1	11
28	7.6	4.2	2.6	2.7	3.0	10	23	103	43	13	4.1	8.1
29	7.2	4.2	2.6	2.8	3.0	8.6	18	70	40	22	3.7	6.5
30	7.0	4.1	2.5	2.8	---	10	20	62	39	20	3.5	6.0
31	6.8	---	2.5	2.8	---	13	---	96	---	17	3.5	---
TOTAL	268.8	156.8	97.3	80.6	83.0	243.3	1031.0	3527	2251	834	182.5	251.8
MEAN	8.67	5.23	3.14	2.60	2.86	7.85	34.4	114	75.0	26.9	5.89	8.39
MAX	17	6.6	4.0	2.8	3.0	17	166	280	161	48	17	28
MIN	4.9	4.1	2.5	2.5	2.8	3.0	8.0	26	39	12	2.0	2.9
AC-FT	533	311	193	160	165	483	2040	7000	4460	1650	362	499

CAL YR 1983 TOTAL 7802.1 MEAN 21.4 MAX 149 MIN 2.0 AC-FT 15480
WTR YR 1984 TOTAL 9007.1 MEAN 24.6 MAX 280 MIN 2.0 AC-FT 17870

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY

LOCATION.--Lat 41°01'43", long 107°41'14", in SE¼NW¼NW¼ sec.7, T.12 N., R.92 W., Carbon County, Hydrologic Unit 14050003, 0.8 mi downstream from Ledford Slough, 1.5 mi southwest of Baggs, and 3.5 mi downstream from bridge on State Highway 789 in Baggs.

PERIOD OF RECORD.--October 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT										
06...	1745	280	406	8.4	13.0	9.0	--	210	130	35
NOV										
15...	1420	162	408	8.7	1.0	11.6	102	--	180	47
JAN										
06...	1430	651	425	8.0	.0	10.8	--	44	190	50
MAR										
09...	1505	170	480	8.2	.0	10.5	90	41	--	--
APR										
20...	1540	E2000	443	8.1	4.0	9.6	93	K180	150	36
JUN										
01...	1515	7370	175	8.2	12.5	8.5	100	1000	--	--
JUL										
13...	1540	E1000	280	8.4	19.0	6.7	91	K200	--	--
AUG										
22...	1020	231	430	8.4	18.5	7.6	101	340	--	--
SEP										
20...	0830	192	400	8.5	14.0	7.7	94	600	160	41

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT									
06...	11	21	.8	2.0	120	62	6.2	.20	16
NOV									
15...	14	27	.9	1.5	160	67	6.2	.20	17
JAN									
06...	15	29	1	2.0	170	67	7.3	.40	21
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
20...	14	36	1	1.6	110	110	5.6	.20	10
JUN									
01...	--	--	--	--	--	--	--	--	--
JUL									
13...	--	--	--	--	--	--	--	--	--
AUG									
22...	--	--	--	--	--	--	--	--	--
SEP									
20...	13	25	.9	1.6	140	69	6.9	.20	12

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	230	.31	170	<.10	.08	.010	.29	.30	.170
NOV 15...	280	.38	121	<.10	.00	.050	1.1	1.1	.020
JAN 06...	290	.40	516	.10	.30	.030	--	<.20	.020
MAR 09...	--	--	--	.10	--	.080	.22	.30	.050
APR 20...	280	.38	--	.30	.30	.110	4.4	4.5	4.10
JUN 01...	--	--	--	.20	--	.090	.41	.50	.200
JUL 13...	--	--	--	<.10	--	.040	.46	.50	.120
AUG 22...	--	--	--	<.10	--	.070	.33	.40	.120
SEP 20...	250	.34	131	<.10	.00	.040	.96	1.0	.380

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
OCT 06...	1745	<.01	<.01	<.01	<.01	<.010	.010
AUG 22...	1020	.01	<.01	<.01	<.01	<.010	.010
SEP 20...	0830	<.01	<.01	<.01	<.01	<.010	.010

BEAR RIVER BASIN

10010400 EAST FORK BEAR RIVER NEAR EVANSTON, WY

LOCATION.--Lat 40°52'25", long 110°47'00", in SE¼SE¼SW¼ sec.26, T.2 N., R.10 E., Summit County, UT, Hydrologic Unit 16010101, Wasatch National Forest, on right bank 4.1 mi upstream from mouth, 11.5 mi upstream from Utah-Wyoming State line, and 28.7 mi south of Evanston.

DRAINAGE AREA.--34.6 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,760 ft, from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--11 years, 57.0 ft^3/s, 41,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 857 ft^3/s, June 18, 1983, gage height, 4.33 ft; minimum, 4.5 ft^3/s, Apr. 17, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 560 ft^3/s, May 30, gage height, 9.0 ft; minimum daily, 9.0 ft^3/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	28	18	22	10	11	13	17	480	345	106	54
2	42	26	18	22	10	11	14	17	450	312	97	50
3	43	25	18	23	10	11	12	16	470	286	89	47
4	42	25	19	22	11	11	10	16	400	265	85	45
5	42	23	20	20	11	11	11	15	370	239	96	42
6	39	24	21	19	11	11	11	16	330	220	92	70
7	39	25	21	20	11	11	11	15	300	211	79	54
8	38	24	21	20	11	10	12	15	270	230	75	48
9	39	23	20	22	11	10	13	22	240	300	70	45
10	48	25	20	20	13	10	12	24	220	257	68	42
11	47	26	20	21	13	11	14	28	210	199	68	45
12	43	24	20	17	13	11	13	42	200	279	66	66
13	43	25	19	15	12	11	13	70	205	184	61	56
14	45	24	19	12	12	11	15	127	220	163	65	52
15	42	23	19	11	13	10	16	215	235	151	64	50
16	39	26	20	10	14	10	18	186	242	142	66	48
17	38	23	21	11	13	11	22	157	253	133	64	47
18	38	24	19	10	12	11	22	202	270	124	69	43
19	35	24	18	9.0	11	12	20	262	290	117	85	42
20	34	22	17	9.5	10	11	19	312	305	116	97	53
21	33	20	16	11	10	11	20	445	330	131	75	92
22	32	19	16	12	11	12	22	445	340	159	69	63
23	32	20	17	13	11	12	23	402	340	142	72	55
24	32	19	18	13	11	11	23	446	340	129	72	62
25	30	18	19	13	11	10	22	548	350	138	82	62
26	29	20	20	13	10	10	20	443	350	145	72	60
27	28	20	21	12	10	10	19	366	350	142	65	56
28	27	20	21	12	10	11	18	392	348	122	61	53
29	26	20	21	11	11	11	18	376	345	145	58	50
30	27	19	22	11	---	13	17	560	377	122	54	48
31	27	---	23	10	---	11	---	540	---	116	56	---
TOTAL	1143	684	602	466.5	327	338	493	6737	9430	5664	2298	1600
MEAN	36.9	22.8	19.4	15.0	11.3	10.9	16.4	217	314	183	74.1	53.3
MAX	48	28	23	23	14	13	23	560	480	345	106	92
MIN	26	18	16	9.0	10	10	10	15	200	116	54	42
AC-FT	2270	1360	1190	925	649	670	978	13360	18700	11230	4560	3170

CAL YR 1983 TOTAL 28603.5 MEAN 78.4 MAX 690 MIN 9.0 AC-FT 56740
WTR YR 1984 TOTAL 29782.5 MEAN 81.4 MAX 560 MIN 9.0 AC-FT 59070

10011200 WEST FORK BEAR RIVER AT WHITNEY DAM, NEAR OAKLEY, UT

LOCATION.--Lat 40°50'30", long 110°55'35", in NE¼ sec.9, T.1 N., R.9 E., Summit County, Hydrologic Unit 16010101, Wasatch National Forest, on left bank 1,380 ft downstream from Whitney Dam, 7 mi upstream from Deer Creek, and 21.5 mi northeast of Oakley.

DRAINAGE AREA.--6.79 mi².

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1965, published as "at Whitney Dam Site".

REVISED RECORD.--WRD UT-1973: Drainage area.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir since Aug. 4, 1966. Altitude of gage is 9,120 ft, from topographic map.

REMARKS.--Records poor. Flow regulated by Whitney Reservoir, total capacity, 4,700 acre-feet, since July 1966.

AVERAGE DISCHARGE.--18 years (water years 1967-84), 8.18 ft³/s, 5,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145 ft³/s, June 13, 1965; maximum gage height, 3.08 ft, June 26, 1967; no flow July 24 to Sept. 30, Nov. 16-29, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95 ft³/s, June 3, gage height, 2.70 ft; minimum daily, 0.16 ft³/s, Jan. 31, Feb. 1, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	20	.52	.34	.16	.22	.50	1.4	77	40	8.5	6.9
2	40	20	.50	.33	.17	.22	.50	1.3	84	36	7.4	6.9
3	43	20	.50	.33	.17	.22	.53	1.3	91	32	7.3	6.7
4	44	16	.50	.35	.17	.23	.55	1.3	79	29	7.0	6.6
5	39	2.0	.50	.37	.17	.25	.51	1.3	76	27	6.8	6.6
6	31	1.8	.50	.35	.16	.25	.49	1.3	68	25	6.5	6.6
7	26	1.7	.52	.30	.17	.24	.50	1.3	57	14	6.2	6.6
8	25	1.6	.54	.32	.17	.25	.51	1.3	49	15	5.9	6.6
9	25	1.7	.54	.35	.18	.26	.52	1.3	42	20	5.6	6.6
10	24	1.8	.52	.33	.18	.26	.60	1.3	39	22	5.4	6.6
11	24	1.6	.48	.32	.19	.25	.56	1.3	37	19	5.3	6.6
12	24	1.4	.45	.34	.18	.26	.60	1.3	35	17	5.3	6.6
13	24	1.4	.42	.32	.18	.28	.56	1.3	34	15	5.4	6.6
14	24	1.7	.42	.25	.17	.29	.58	1.3	34	11	8.4	6.6
15	24	1.5	.41	.23	.18	.31	.60	1.3	40	12	8.9	6.6
16	24	1.3	.40	.20	.18	.33	1.1	1.3	46	12	7.9	6.6
17	24	1.2	.38	.18	.19	.34	1.2	1.3	51	12	7.2	6.6
18	24	1.0	.35	.19	.18	.36	1.4	1.3	60	11	7.8	6.6
19	23	.86	.33	.20	.17	.38	1.4	1.3	66	10	11	6.6
20	23	.78	.30	.19	.18	.41	1.4	1.5	65	10	14	6.7
21	23	.74	.29	.17	.18	.41	1.3	1.8	69	12	11	6.6
22	23	.64	.29	.17	.19	.42	1.3	1.9	68	12	9.1	23
23	23	.60	.29	.18	.20	.44	1.3	2.0	63	10	9.0	76
24	23	.56	.30	.19	.21	.45	1.4	2.1	59	9.9	8.6	79
25	22	.56	.29	.20	.23	.44	1.4	2.3	53	11	8.2	79
26	22	.56	.29	.19	.22	.42	1.4	2.4	48	12	8.1	79
27	22	.56	.29	.19	.22	.40	1.3	2.6	49	12	7.4	78
28	21	.56	.30	.18	.23	.43	1.3	2.5	48	11	7.0	75
29	21	.56	.32	.18	.22	.45	1.3	13	45	9.9	6.9	78
30	21	.54	.34	.17	---	.47	1.3	21	43	9.6	6.9	73
31	21	---	.35	.16	---	.51	---	40	---	8.9	6.9	---
TOTAL	818	105.22	12.43	7.77	5.40	10.45	27.91	117.9	1675	507.3	236.9	779.4
MEAN	26.4	3.51	.40	.25	.19	.34	.93	3.80	55.8	16.4	7.64	26.0
MAX	44	20	.54	.37	.23	.51	1.4	40	91	40	14	79
MIN	21	.54	.29	.16	.16	.22	.49	1.3	34	8.9	5.3	6.6
AC-FT	1620	209	25	15	11	21	55	234	3320	1010	470	1550

CAL YR 1983 TOTAL 4151.15 MEAN 11.4 MAX 96 MIN .29 AC-FT 8230
WTR YR 1984 TOTAL 4303.78 MEAN 11.8 MAX 91 MIN .16 AC-FT 8540

10011400 WEST FORK BEAR RIVER BELOW DEER CREEK, NEAR EVANSTON, WY

LOCATION.--Lat 40°56'40", long 110°51'40", in NE¼SE¼NW¼ sec.6, T.2 N., R.10 E., Summit County, UT, Hydrologic Unit 16010101, on left bank 0.8 mi downstream from Deer Creek, 2.1 mi upstream from mouth, and 22.9 mi south of Evanston.

DRAINAGE AREA.--52.2 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,190 ft, from topographic map.

REMARKS.--Records fair except those for winter months, which are poor. Flow regulated by Whitney Reservoir, total capacity, 4,700 acre-ft, since July 1966.

AVERAGE DISCHARGE.--11 years, 47.5 ft³/s, 32,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s, May 15, 1984, gage height, 4.20 ft; minimum, 2.0 ft³/s, Aug. 11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft³/s, May 15, gage height, 4.20 ft; minimum daily, 9.5 ft³/s, Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	38	21	23	11	17	12	26	512	144	44	31
2	67	37	20	22	12	16	15	27	403	130	40	29
3	70	36	20	23	13	14	16	26	457	118	38	28
4	70	33	21	23	13	14	18	26	347	108	36	27
5	65	20	21	22	14	14	13	26	395	100	36	27
6	57	19	22	20	14	14	12	24	337	92	36	46
7	46	18	23	19	14	14	12	26	314	81	34	38
8	45	17	23	22	14	14	13	31	287	79	32	32
9	44	17	23	20	14	13	14	49	239	96	30	30
10	57	16	22	19	14	14	15	75	224	94	30	28
11	56	16	22	20	15	12	14	108	210	78	30	28
12	50	16	22	21	15	13	20	163	192	70	31	31
13	48	17	22	17	14	14	14	273	194	69	30	33
14	49	18	22	14	14	12	16	405	200	63	34	30
15	47	15	20	12	15	15	16	630	210	57	35	30
16	46	16	21	11	16	15	20	585	220	54	34	30
17	46	19	23	10	16	16	26	459	233	51	32	29
18	46	21	22	12	14	17	32	475	251	48	38	28
19	44	26	21	10	14	18	33	499	267	47	68	28
20	43	22	19	9.5	13	17	29	587	259	47	68	29
21	42	21	19	11	13	17	28	602	262	55	45	55
22	42	22	18	12	14	18	29	515	246	55	38	46
23	41	22	18	13	14	19	31	562	225	49	43	89
24	43	21	18	13	14	18	35	503	213	48	46	97
25	41	21	19	13	14	17	35	368	205	50	42	96
26	40	22	19	12	15	13	32	344	187	53	40	98
27	39	21	20	11	14	14	30	347	178	55	35	98
28	38	21	21	12	14	17	29	311	167	49	32	91
29	38	21	20	11	15	17	29	328	155	47	31	91
30	37	21	20	11	---	14	26	361	156	47	30	87
31	38	---	23	11	---	16	---	489	---	46	31	---
TOTAL	1502	650	645	479.5	406	473	664	9250	7745	2180	1169	1460
MEAN	48.5	21.7	20.8	15.5	14.0	15.3	22.1	298	258	70.3	37.7	48.7
MAX	70	38	23	23	16	19	35	630	512	144	68	98
MIN	37	15	18	9.5	11	12	12	24	155	46	30	27
AC-FT	2980	1290	1280	951	805	938	1320	18350	15360	4320	2320	2900

CAL YR 1983 TOTAL 26742.0 MEAN 73.3 MAX 611 MIN 10 AC-FT 53040
WTR YR 1984 TOTAL 26623.5 MEAN 72.7 MAX 630 MIN 9.5 AC-FT 52810

10011500 BEAR RIVER NEAR UTAH-WYOMING STATE LINE

LOCATION.--Lat 40°57'55", long 110°51'10", in SE¼NW¼SE¼ sec.30, T.3 N., R.10 E., Summit County, UT, Hydrologic Unit 16010101, on left bank 400 ft downstream from West Fork and 2.8 mi upstream from Utah-Wyoming State line.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,965 ft, from river-profile map.

REMARKS.--Records fair. Flow regulated slightly by Whitney Reservoir, total capacity, 4,700 acre-ft, since 1966. Three diversions above station for irrigation of about 265 acres above and 2,600 acres below station.

AVERAGE DISCHARGE.--42 years, 194 ft³/s, 140,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,980 ft³/s, June 5, 1968, gage height, 3.79 ft; maximum gage height, 4.28 ft, June 19, 1983; minimum, 6.8 ft³/s, Apr. 12, 1984, result of upstream ice jam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 15	2100	2,020	3.43	May 31	2350	2,540	3.85
May 24	0330	*2,650	*3.94				

Minimum, 6.8 ft³/s, Apr. 12, result of upstream ice jam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	129	100	104	52	65	66	102	1950	999	252	149
2	211	129	104	100	54	65	65	102	1550	914	225	126
3	212	124	102	108	60	65	68	102	1660	824	206	118
4	199	121	97	113	63	65	61	101	1340	773	195	112
5	197	111	100	105	68	65	66	101	1330	709	199	107
6	177	108	100	97	68	65	67	102	1190	646	213	216
7	158	108	100	93	71	65	67	100	1100	590	173	173
8	152	113	106	95	68	65	68	106	952	603	155	135
9	152	89	106	90	66	65	73	148	818	784	143	122
10	206	113	102	107	66	65	63	259	773	747	138	113
11	222	109	100	92	64	65	68	346	712	557	137	115
12	180	106	100	99	62	65	44	499	667	488	151	209
13	177	105	101	80	61	65	66	833	739	517	132	198
14	190	101	105	64	60	65	59	1220	903	447	148	167
15	179	98	100	58	64	65	72	1620	1090	393	144	162
16	167	107	100	50	70	66	86	1600	1080	364	156	155
17	167	105	108	45	74	67	103	1360	1080	334	145	145
18	169	104	106	54	72	67	123	1380	1180	306	163	133
19	154	98	100	48	66	66	128	1420	1230	285	248	131
20	153	104	83	44	60	67	106	1660	1200	279	341	141
21	151	100	80	48	62	67	102	1980	1270	321	211	354
22	149	93	78	54	62	67	109	1820	1250	394	183	241
23	145	103	76	58	64	67	110	1920	1200	354	201	252
24	150	103	74	60	64	65	120	2040	1170	336	205	270
25	139	103	78	61	65	65	115	1600	1160	343	218	262
26	135	99	82	56	65	66	103	1430	1160	347	208	268
27	132	100	88	54	64	69	99	1540	1100	341	171	253
28	128	100	90	53	65	70	97	1500	1050	282	153	228
29	127	100	84	52	65	69	100	1610	1030	326	143	217
30	126	100	82	52	---	67	102	1750	1070	299	133	209
31	128	---	110	50	---	66	---	2020	---	273	139	---
TOTAL	5154	3183	2942	2244	1865	2046	2576	32371	34004	15175	5629	5481
MEAN	166	106	94.9	72.4	64.3	66.0	85.9	1044	1133	490	182	183
MAX	222	129	110	113	74	70	128	2040	1950	999	341	354
MIN	126	89	74	44	52	65	44	100	667	273	132	107
AC-FT	10220	6310	5840	4450	3700	4060	5110	64210	67450	30100	11170	10870

CAL YR 1983	TOTAL	113572	MEAN	311	MAX	2130	MIN	40	AC-FT	225300
WTR YR 1984	TOTAL	112670	MEAN	308	MAX	2040	MIN	44	AC-FT	223500

B[illegible] AVAILABLE

10015700 SULPHUR CREEK ABOVE RESERVOIR, NEAR EVANSTON, WY

LOCATION.--Lat 41°08'38", long 110°48'19", in NE¼SE¼SW¼ sec.35, T.14 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on right bank 1.2 mi downstream from Willow Creek, 2 mi upstream from Sulphur Creek Dam, and 11.5 mi southeast of Evanston.

DRAINAGE AREA.--64.2 mi^2.

PERIOD OF RECORD.--October 1957 to current year. Monthly discharge only for October and November 1957, published in WSP 1734.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,180 ft, from topographic map.

REMARKS.--Records good except those for winter months, which are poor. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 18.1 ft^3/s, 13,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft^3/s, June 1, 1983, gage height, 9.10 ft, from rating curve extended above 1,200 ft^3/s, on basis of slope-area measurement of peak flow (flood was result of released water from temporary blockage of upstream road culverts); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft^3/s, May 16, gage height, 6.02 ft; minimum daily, 3.4 ft^3/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	8.8	8.7	11	3.9	7.0	13	99	202	24	20	8.2
2	8.8	8.8	8.6	10	3.8	7.0	13	121	113	22	17	8.6
3	11	8.8	8.3	11	3.7	7.0	13	137	110	20	13	7.8
4	10	9.2	8.0	11	3.8	7.4	13	162	92	17	10	7.1
5	8.4	9.2	8.0	11	3.8	8.0	12	152	140	16	15	6.4
6	8.0	9.2	8.0	10	4.0	9.0	13	117	123	12	14	12
7	7.3	9.6	7.8	9.4	4.0	9.2	13	106	139	8.9	11	17
8	6.9	12	7.8	9.8	4.1	9.2	14	172	147	9.7	10	12
9	6.9	10	7.6	9.2	4.4	9.4	15	412	135	18	10	8.6
10	24	11	8.0	10	4.1	9.6	14	582	96	21	9.3	6.8
11	20	14	8.0	10	3.9	10	14	670	99	17	9.3	6.1
12	12	16	8.0	9.4	4.0	10	15	674	73	14	10	7.5
13	10	19	8.0	10	3.9	10	15	742	63	17	10	8.9
14	10	15	8.6	10	3.8	10	15	760	59	15	10	8.6
15	11	17	8.4	7.0	3.9	10	14	806	62	9.7	12	5.8
16	9.2	17	8.6	5.0	4.0	11	15	643	45	10	16	6.8
17	8.8	19	8.8	4.0	4.0	11	20	369	32	10	16	7.1
18	8.4	20	8.6	3.8	4.1	11	30	320	36	9.3	11	6.4
19	8.4	20	8.4	3.4	4.5	11	45	334	41	9.3	21	6.1
20	8.8	17	8.4	3.6	4.8	11	70	401	39	10	36	6.8
21	8.4	13	8.2	3.8	5.0	12	110	465	30	18	20	29
22	8.0	11	8.4	3.5	5.0	12	114	273	27	28	14	22
23	7.7	9.5	8.8	3.5	5.0	11	140	292	25	31	17	14
24	8.8	9.0	9.0	3.8	5.0	11	203	301	24	30	18	15
25	9.2	8.8	10	4.0	5.4	11	171	166	23	24	17	21
26	8.4	8.8	10	4.5	6.0	11	119	139	22	26	17	26
27	8.4	8.8	10	4.6	6.0	12	96	145	22	36	13	17
28	8.0	8.7	9.2	4.5	6.0	12	86	118	20	30	10	12
29	8.0	8.7	9.8	4.4	6.4	12	79	113	20	52	8.9	11
30	8.4	8.7	10	4.1	---	11	78	112	20	34	8.2	12
31	8.8	---	11	4.0	---	12	---	134	---	23	7.5	---
TOTAL	297.3	365.6	269.0	213.3	130.3	314.8	1582	10037	2079	621.9	431.2	343.6
MEAN	9.59	12.2	8.68	6.88	4.49	10.2	52.7	324	69.3	20.1	13.9	11.5
MAX	24	20	11	11	6.4	12	203	806	202	52	36	29
MIN	6.9	8.7	7.6	3.4	3.7	7.0	12	99	20	8.9	7.5	5.8
AC-FT	590	725	534	423	258	624	3140	19910	4120	1230	855	682

CAL YR 1983 TOTAL 16205.3 MEAN 44.4 MAX 691 MIN 3.0 AC-FT 32140
WTR YR 1984 TOTAL 16685.0 MEAN 45.6 MAX 806 MIN 3.4 AC-FT 33090

10015900 SULPHUR CREEK BELOW RESERVOIR, NEAR EVANSTON, WY

LOCATION.--Lat 41°09'21", long 110°50'05", in SE¼SE¼SE¼ sec.28, T.14 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on left bank 400 ft downstream from Sulphur Creek Dam, 6.3 mi upstream from mouth, and 10.5 mi southeast of Evanston.

DRAINAGE AREA.--69.2 mi².

PERIOD OF RECORD.--April 1958 to current year.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder and concrete V-notch control. Altitude of gage is 7,120 ft, from topographic map.

REMARKS.--Records poor. No gage-height record Dec. 5 to Feb. 14. Flow regulated by Sulphur Creek Reservoir, capacity, 7,100 acre-ft. Records prior to 1965 do not include flow over spillway of dam.

AVERAGE DISCHARGE.--20 years (water years 1965-84), 26.6 ft³/s, 19,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1966).--Maximum daily discharge, 740 ft³/s, May 15, 1984; no flow at times each year except 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 740 ft³/s, May 15; no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	.00	.00	25	37	49	61	64	231	9.4	50	7.2
2	39	.00	.00	26	38	49	62	64	170	13	46	6.9
3	39	.00	.00	26	38	49	62	64	170	16	44	6.4
4	38	.00	.00	26	39	49	62	64	170	18	44	6.2
5	38	.00	.00	27	39	50	62	64	170	18	44	4.3
6	38	.00	.00	27	40	50	62	90	170	18	44	4.3
7	38	.00	.00	27	40	50	62	120	170	17	8.0	7.7
8	38	.00	.00	28	40	50	62	140	170	15	.25	8.0
9	6.9	.00	.00	28	41	51	62	170	170	18	.23	7.4
10	.07	.00	.20	28	41	51	62	230	92	24	.23	6.2
11	.05	.00	1.0	29	42	52	62	450	51	28	.26	48
12	.05	.00	3.0	29	43	52	62	570	52	30	.26	83
13	.04	.00	6.0	29	44	53	62	680	36	28	.26	82
14	.04	.00	10	30	44	54	63	700	8.5	28	.26	83
15	.04	.00	20	30	44	54	63	740	8.5	27	.26	82
16	.00	.00	20	30	44	54	63	580	8.5	27	.29	82
17	.00	.00	20	31	45	54	63	446	8.5	27	.29	82
18	.00	.00	21	31	45	55	63	396	8.5	26	.42	82
19	.00	.00	21	32	45	55	63	362	8.5	22	1.2	82
20	.00	.00	22	32	45	56	63	357	8.5	19	8.8	81
21	.00	.00	22	32	46	56	63	398	8.8	24	24	81
22	.00	.00	22	33	46	57	63	360	8.8	30	28	80
23	.00	.00	23	33	46	57	63	328	8.8	51	25	80
24	.00	.00	23	34	47	57	64	323	8.8	80	24	79
25	.00	.00	23	34	47	58	64	289	8.8	74	19	79
26	.00	.00	24	34	48	58	64	270	8.8	74	11	79
27	.00	.00	24	35	48	59	64	268	8.8	76	11	78
28	.00	.00	24	35	48	59	64	268	8.5	71	11	78
29	.00	.00	25	36	48	60	64	266	8.5	76	10	77
30	.00	.00	25	36	---	60	64	264	8.8	79	9.1	77
31	.00	---	25	37	---	61	---	259	---	67	8.0	---
TOTAL	314.19	.00	404.20	950	1258	1679	1883	9644	1968.9	1130.4	473.11	1639.6
MEAN	10.1	.000	13.0	30.6	43.4	54.2	62.8	311	65.6	36.5	15.3	54.7
MAX	39	.00	25	37	48	61	64	740	231	80	50	83
MIN	.00	.00	.00	25	37	49	61	64	8.5	9.4	.23	4.3
AC-FT	623	.00	802	1880	2500	3330	3730	19130	3910	2240	938	3250

CAL YR 1983 TOTAL 18261.46 MEAN 50.0 MAX 600 MIN .00 AC-FT 36220
WTR YR 1984 TOTAL 21344.40 MEAN 58.3 MAX 740 MIN .00 AC-FT 42340

10016900 BEAR RIVER AT EVANSTON, WY

LOCATION.--Lat 41°16'13", long 110°57'47", in NE¼NW¼NW¼ sec.21, T.15 N., R.120 W., Uinta County, Hydrologic Unit 16010101, on left bank 100 ft downstream from bridge on State Highway 89, in the City of Evanston, WY.

DRAINAGE AREA.--433 mi².

PERIOD OF RECORD.--May to September 1984.

GAGE.--Water-stage recorder. Altitude of gage is 6,730 ft, from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,680 ft³/s, May 16, gage height, 7.35 ft; minimum daily discharge during period of operation, 82 ft³/s, Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	2860	988	277	131
2								---	2190	882	253	124
3								---	2090	771	230	111
4								---	1880	695	202	106
5								---	1830	625	204	102
6								---	1660	559	203	134
7								---	1640	487	179	239
8								---	1460	420	125	172
9								---	1240	545	108	148
10								---	1100	650	85	132
11								---	1030	475	82	137
12								---	973	450	101	205
13								---	883	400	94	269
14								2400	947	350	93	243
15								2780	1140	310	110	224
16								3160	1190	270	147	222
17								2430	1150	240	127	217
18								2370	1220	180	112	200
19								2300	1290	149	229	188
20								2390	1250	134	433	185
21								2890	1320	145	304	329
22								2810	1300	207	228	369
23								2730	1230	245	211	296
24								2890	1190	273	228	323
25								2400	1140	291	222	341
26								1970	1170	294	246	360
27								2090	1100	358	192	344
28								2020	1000	305	166	313
29								2090	951	329	149	296
30								2250	951	401	138	300
31								2470	---	316	123	---
TOTAL								---	40375	12744	5601	6760
MEAN								---	1346	411	181	225
MAX								---	2860	988	433	369
MIN								---	883	134	82	102
AC-FT								---	80080	25280	11110	13410

10018900 YELLOW CREEK AT MOUTH, NEAR EVANSTON, WY

LOCATION.--Lat 41°18'33", long 111°00'43", in SW¼NE¼ sec.1, T.15 N., R.121 W., Unita County, Hydrologic Unit 16010101, approximately 1,000 ft upstream from mouth and 4 mi northeast of Evanston.

PERIOD OF RECORD.--October to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT 24...	1330	23	900	8.6	6.5	9.9	103
DEC 07...	1220	E15	640	8.0	.0	9.2	82
JAN 12...	1220	E7.5	460	8.5	.0	10.2	90
FEB 28...	1140	E4.0	600	8.2	.0	9.6	85
APR 09...	1300	137	600	8.2	3.0	9.9	96
JUN 13...	0820	156	500	8.5	14.0	8.9	112
JUL 11...	1400	41	750	8.2	19.0	9.3	130
26...	1700	46	700	8.5	20.5	--	--
AUG 15...	1520	18	740	8.3	23.0	9.2	137
SEP 10...	1330	23	820	8.4	18.0	9.2	127

E-Estimate.

DATE	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	K39	<.100	.040	.76	.80	.040
DEC 07...	350	.100	.250	.95	1.2	.080
JAN 12...	110	.100	.260	.44	.70	.230
FEB 28...	360	.200	.200	.60	.80	.210
APR 09...	K26	.300	.040	2.0	2.0	.620
JUN 13...	87	<.100	.030	.97	1.0	.100
JUL 11...	200	<.100	.050	.45	.50	.070
26...	100	<.100	.040	.96	1.0	.050
AUG 15...	110	<.100	.050	.85	.90	.050
SEP 10...	97	<.100	.040	.76	.80	.040

K-Results based on colony count outside the acceptable range (non-ideal colony count).

10019500 CHAPMAN CANAL AT STATE LINE, NEAR EVANSTON, WY

LOCATION.--Lat 41°24'24", long 111°02'26", in SE¼ sec.36, T.17 N., R.121 W., Uinta County, Hydrologic Unit 16010101, on left bank at highway bridge, 6.5 mi downstream from headgates, and 10 mi northwest of Evanston.

PERIOD OF RECORD.--April 1942 to current year (prior to October 1944, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder and flashboard control. Altitude of gage is 6,570 ft, from river-profile map. Prior to Oct. 11, 1946, nonrecording gage, and Oct. 11, 1946, to Aug. 2, 1961, water-stage recorder, at site 20 ft downstream at same datum.

REMARKS.--Records fair. Canal diverts water from Bear River in NW¼ sec.36, T.16 N., R.121 W. Many diversions above station for irrigation in Wyoming. Flow at station is for storage in Neponset Reservoir, UT, and irrigation in Saleratus basin, UT.

AVERAGE DISCHARGE.--40 years (water years 1945-84), 19.4 ft^3/s, 14,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 143 ft^3/s, June 24, 1970; no flow at times each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	.00	.00	.00	.00	.00	.00	7.7	26	26	4.2	2.9
2	9.9	.00	.00	.00	.00	.00	.00	7.4	26	24	6.4	2.8
3	9.9	.00	.00	.00	.00	.00	.00	7.7	25	21	2.3	1.8
4	9.5	.00	.00	.00	.00	.00	.00	7.1	26	17	3.4	1.6
5	9.5	.00	.00	.00	.00	.00	.00	6.7	20	14	2.6	.71
6	9.1	.00	.00	.00	.00	.00	.00	6.4	22	12	1.1	.71
7	9.1	.00	.00	.00	.00	.00	.00	6.4	16	10	.53	.91
8	9.1	.00	.00	.00	.00	.00	.00	6.1	12	5.8	.00	2.0
9	9.1	.00	.00	.00	.00	.00	.00	5.8	12	6.4	.00	1.6
10	11	.00	.00	.00	.00	.00	.00	5.8	6.7	12	.00	1.1
11	11	.00	.00	.00	.00	.00	.00	5.8	5.1	9.1	.00	1.1
12	10	.00	.00	.00	.00	.00	.00	9.5	2.4	11	.00	1.1
13	9.9	.00	.00	.00	.00	.00	.00	12	6.1	10	.00	1.3
14	9.5	.00	.00	.00	.00	.00	.00	11	6.1	9.5	9.2	1.3
15	9.5	.00	.00	.00	.00	.00	.00	11	5.1	8.8	11	1.3
16	9.5	.00	.00	.00	.00	.00	.00	12	9.1	8.7	13	1.1
17	9.5	.00	.00	.00	.00	.00	.00	14	11	24	11	1.1
18	9.1	.00	.00	.00	.00	.00	.00	14	12	35	5.4	1.1
19	7.9	.00	.00	.00	.00	.00	.00	14	14	34	9.9	.71
20	2.3	.00	.00	.00	.00	.00	.00	12	20	32	21	.53
21	2.0	.00	.00	.00	.00	.00	.00	16	18	32	20	8.8
22	1.3	.00	.00	.00	.00	.00	.00	53	18	36	6.1	11
23	1.1	.00	.00	.00	.00	.00	.00	55	19	41	7.7	11
24	.91	.00	.00	.00	.00	.00	.00	54	18	42	2.8	11
25	.91	.00	.00	.00	.00	.00	.00	.05	25	41	2.0	12
26	.91	.00	.00	.00	.00	.00	.00	37	31	34	2.3	13
27	.91	.00	.00	.00	.00	.00	.32	36	27	12	1.6	14
28	.53	.00	.00	.00	.00	.00	7.1	33	27	12	.08	12
29	.21	.00	.00	.00	.00	.00	6.7	29	25	12	.00	12
30	.00	.00	.00	.00	---	.00	6.7	25	22	16	.00	14
31	.00	---	.00	.00	---	.00	---	25	---	8.1	.00	---
TOTAL	192.68	.00	.00	.00	.00	.00	20.82	545.45	512.6	616.4	143.61	145.57
MEAN	6.22	.000	.000	.000	.000	.000	.69	17.6	17.1	19.9	4.63	4.85
MAX	11	.00	.00	.00	.00	.00	7.1	55	31	42	21	14
MIN	.00	.00	.00	.00	.00	.00	.00	.05	2.4	5.8	.00	.53
AC-FT	382	.00	.00	.00	.00	.00	41	1080	1020	1220	285	289

CAL YR 1983 TOTAL 5519.17 MEAN 15.1 MAX 89 MIN .00 AC-FT 10950
WTR YR 1984 TOTAL 2177.13 MEAN 5.95 MAX 55 MIN .00 AC-FT 4320

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT

LOCATION.--Lat 41°26'04", long 111°01'01", in NW¼NW¼ sec.29, T.17 N., R.120 W., Uinta County, WY, Hydrologic Unit 16010101, on right bank 9.3 mi upstream from Woodruff Narrows Dam and 10 mi southeast of Woodruff.

DRAINAGE AREA.--752 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,455 ft, from river-profile map.

REMARKS.--Records good except those for winter months, which are poor. Diversion for irrigation of about 43,500 acres above station.

AVERAGE DISCHARGE.--23 years, 256 ft³/s, 185,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft³/s, June 2, 1983, gage height, 6.17 ft; minimum, 0.1 ft³/s, Aug. 24, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,600 ft³/s, May 16, gage height, 5.92 ft; minimum daily, 86 ft³/s, Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	183	188	184	120	140	270	539	2580	864	339	126
2	270	186	190	182	120	150	262	629	2670	774	300	141
3	285	183	188	187	110	140	262	749	2260	676	274	126
4	295	173	185	202	118	145	270	951	2230	612	242	116
5	285	163	186	190	121	150	278	924	2170	550	230	111
6	275	154	186	180	128	155	317	825	2180	491	230	132
7	255	157	185	170	132	152	339	768	2070	455	226	211
8	245	176	190	170	127	152	326	768	2010	381	175	200
9	245	169	190	164	120	155	376	978	1870	430	144	171
10	280	148	188	191	130	160	344	1380	1580	556	117	144
11	350	186	187	170	124	152	321	1650	1270	491	105	144
12	305	204	187	180	120	158	308	1890	1110	410	111	178
13	270	216	187	150	120	158	295	2120	964	353	119	250
14	260	224	190	120	130	152	292	2280	937	344	94	254
15	265	183	187	110	131	160	308	2640	1050	308	105	238
16	245	183	187	100	132	150	386	3120	1220	266	135	234
17	232	200	190	105	131	160	545	3180	1220	246	141	242
18	220	204	190	113	130	168	787	3640	1190	207	132	230
19	220	186	170	110	130	177	1150	2460	1270	171	178	207
20	208	180	160	110	128	190	1020	2450	1330	144	381	203
21	204	180	160	120	122	190	768	2620	1250	138	391	266
22	197	175	168	130	120	180	676	3020	1350	178	291	415
23	190	185	171	140	120	200	712	2760	1290	234	242	321
24	190	190	160	148	130	220	971	2720	1190	250	250	348
25	197	190	180	140	137	220	1260	2970	1150	282	258	367
26	190	185	176	132	140	190	937	2430	1140	291	266	386
27	186	185	168	130	140	200	712	2240	1020	362	238	381
28	183	186	160	128	140	220	623	2240	904	381	200	344
29	173	186	174	132	140	240	534	2240	851	372	182	321
30	169	186	185	140	---	260	496	2240	799	465	158	308
31	169	---	200	130	---	265	---	2250	---	400	144	---
TOTAL	7318	5506	5613	4558	3691	5509	16145	61671	44125	12082	6398	7115
MEAN	236	184	181	147	127	178	538	1989	1471	390	206	237
MAX	350	224	200	202	140	265	1260	3640	2670	864	391	415
MIN	169	148	160	100	110	140	262	539	799	138	94	111
AC-FT	14520	10920	11130	9040	7320	10930	32020	122300	87520	23960	12690	14110

CAL YR 1983 TOTAL 186700 MEAN 512 MAX 3900 MIN 70 AC-FT 370300
WTR YR 1984 TOTAL 179731 MEAN 491 MAX 3640 MIN 94 AC-FT 356500

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
24...	1500	186	395	8.8	8.0	13.6	146	120	190	43
DEC										
06...	1340	E150	460	8.5	.0	10.2	90	270	260	56
JAN										
12...	1040	E130	600	8.3	.0	10.1	89	K690	290	68
FEB										
28...	1230	E100	550	8.1	.0	10.2	90	K960	310	69
APR										
09...	1415	E450	430	8.3	4.0	10.3	102	440	280	64
JUN										
08...	1500	E2000	--	--	9.0	--	--	--	170	42
13...	1030	805	300	8.2	14.0	8.9	112	500	--	--
JUL										
11...	1500	300	300	8.4	19.0	9.2	128	190	140	33
26...	1800	E250	300	8.5	19.5	--	--	410	200	47
AUG										
15...	1630	90	400	8.6	23.5	9.4	--	510	210	50
SEP										
10...	1430	200	420	8.7	18.0	11.2	154	120	210	47

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT									
24...	19	13	.4	1.0	170	18	17	.20	2.6
DEC									
06...	28	19	.5	1.7	240	27	26	.10	9.7
JAN									
12...	30	24	.6	2.0	260	32	26	.10	11
FEB									
28...	33	21	.5	2.3	280	44	26	.20	11
APR									
09...	30	23	.6	2.3	260	35	35	.50	9.7
JUN									
08...	15	8.0	.3	.80	150	11	13	.10	5.3
13...	--	--	--	--	--	--	--	--	--
JUL									
11...	15	12	.4	1.4	130	12	17	.00	5.7
26...	19	15	.5	1.8	180	19	16	.20	6.6
AUG									
15...	21	19	.6	2.6	210	22	24	.20	3.2
SEP									
10...	23	17	.5	1.2	190	20	23	.10	4.8

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT									
24...	220	.29	108	<.10	.00	.060	.74	.80	.060
DEC									
06...	310	.42	--	.20	.20	.390	.71	1.1	.120
JAN									
12...	350	.47	--	.20	.20	.340	.16	.50	.080
FEB									
28...	370	.51	--	.40	.20	.220	.48	.70	.080
APR									
09...	360	.48	--	.20	.10	.140	.86	1.0	.060
JUN									
08...	190	.25	--	--	.20	--	--	--	.010
13...	--	--	--	<.10	--	.050	.55	.60	.100
JUL									
11...	170	.24	141	<.10	.00	.060	.54	.60	.010
26...	230	.32	--	<.10	.10	.030	.67	.70	.050
AUG									
15...	270	.36	65	<.10	.00	.030	.47	.50	.160
SEP									
10...	250	.34	135	<.10	.50	.030	.57	.60	.080

BEST [illegible] AVAILABLE

10020200 WOODRUFF NARROWS RESERVOIR NEAR WOODRUFF, UT

LOCATION.--Lat 41°30'10", long 111°00'55", in SE¼NW¼NW¼ sec.32, T.18 N., R.120 W., Uinta County, WY, Hydrologic Unit 16010101, in gate house at Woodruff Narrows Dam on Bear River, 5.6 mi upstream from Wyoming-Utah State line, and 7.7 mi east of Woodruff.

DRAINAGE AREA.--784 mi².

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,405 ft, from levels by Bureau of Reclamation.

REMARKS.--Records good except those for period of no gage-height record, Nov. 22 to Mar. 25, which are poor. Reservoir formed by earth-fill, rock faced dam. Storage began Jan. 5, 1962. Total capacity, 28,000 acre-ft below spillway crest. Total capacity increased to 57,300 in 1980. Gage height of spillway is 50.4 ft. Figures given herein represent total contents. Table of daily values rounded to 3 significant figures.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed contents, 64,310 acre-ft, June 2, 1983, gage height, 53.5 ft; minimum observed, 880 acre-ft, Sept. 15-25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 62,280 acre-ft, May 17, 22, 23, 25, gage height, 52.6 ft; minimum observed, 44,100 acre-ft, July 30.

Capacity table (gage height, in feet, and total contents, in acre-feet)

44	43,720	50	56,400
45	45,660	52	60,920
46	47,620	53	63,180
48	51,920		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58900	51900	---	---	---	---	51300	50000	61600	55700	45100	---
2	58900	51700	---	---	---	---	50400	50000	61800	55000	45300	---
3	58900	51300	---	---	---	---	49800	50400	61100	54400	45700	---
4	58900	50400	---	---	---	---	49100	51100	60900	53300	45900	---
5	59100	50400	---	---	---	---	48500	51700	60700	52400	46100	---
6	59100	49800	---	---	---	58000	48100	52100	60500	51100	46100	48500
7	59100	49600	---	---	---	---	47600	52400	60200	50000	46300	48700
8	58900	---	---	---	---	---	47200	52800	60200	48500	46300	48700
9	58900	---	---	---	---	---	46800	53500	60000	47400	46300	48900
10	59100	---	---	---	---	---	46400	54800	59600	46400	46300	48900
11	59100	---	---	---	---	---	46100	56200	59100	45500	46300	48900
12	59100	---	---	---	---	---	45700	57300	58700	---	46300	48900
13	58400	---	---	---	56400	---	45700	58400	58200	---	46300	49100
14	58400	---	---	---	---	---	45700	59600	58000	---	46300	49300
15	58200	46800	---	---	---	---	45700	60900	57800	---	---	49600
16	57300	46400	---	---	---	---	45700	61800	58000	---	---	49800
17	57100	46300	---	---	---	---	45700	62300	58000	---	---	50000
18	56900	46100	---	---	---	---	45700	61600	58000	---	---	50200
19	56400	45900	48900	---	---	---	45700	61400	58200	---	---	50200
20	56200	45900	---	---	---	---	45700	61400	58200	---	---	50400
21	55700	45700	---	---	---	---	46800	61600	58200	---	---	50800
22	55500	---	---	---	---	---	46800	62300	58400	---	---	51700
23	55000	---	---	---	---	---	47000	62300	58400	---	---	52100
24	55000	---	---	54100	---	---	47400	62100	58200	---	---	52600
25	54400	---	---	---	---	56200	49100	62300	58200	---	---	53000
26	53900	---	---	---	---	55500	50000	61600	58000	---	---	53590
27	53700	---	---	---	---	54800	50200	61100	57800	---	---	54100
28	53300	---	---	---	---	54100	50200	60900	57100	---	---	54600
29	52800	---	---	---	a57500	53500	50200	60700	56600	---	---	54800
30	52400	a46600	---	---	---	52600	50000	60700	55900	44100	---	55300
31	52400	---	a50600	a55000	---	51900	---	61100	---	44700	a47800	---
MAX	59100	---	---	---	---	---	51300	62300	61800	---	---	---
MIN	52400	---	---	---	---	---	45700	50000	55900	---	---	---
(†)	48.2	---	---	---	---	48.0	47.1	52.1	49.8	44.5	---	49.5
(‡)	-6520	-5720	+3990	+4410	+2490	-5610	-1940	+11160	-5200	-11250	+3150	+7420

CAL YR 1983 . . . . (‡) +14630
WTR YR 1984 . . . . (‡) -3620

(†) Gage height, in feet, at end of month.
(‡) Change in contents, in acre-feet.
(a) No gage reading, contents interpolated.

10020300 BEAR RIVER BELOW RESERVOIR, NEAR WOODRUFF, UT

LOCATION.--Lat 41°30'20", long 111°00'50", in NW¼NW¼ sec.32, T.18 N., R.120 W., Uinta County, WY, Hydrologic Unit 16010101, on right bank 1,100 ft downstream from Woodruff Narrows Dam, 1.6 mi upstream from Salt Creek, 5.4 mi upstream from Wyoming-Utah State line, and 7.7 mi east of Woodruff.

DRAINAGE AREA.--784 mi².

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORD.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,398.96 ft, National Geodetic Vertical Datum of 1929 (levels by Utah Water Resources Division from Bureau of Reclamation bench mark). Prior to Sept. 26, 1962, at site 175 ft upstream at same datum.

REMARKS.--Records good. Flow regulated by Woodruff Narrows Reservoir (see sta 10020200) beginning January 1962. Diversions for irrigation of about 43,500 acres above station.

AVERAGE DISCHARGE.--23 years, 249 ft³/s, 180,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,820 ft³/s, June 2, 1983, gage height, 8.26 ft; no flow July 4, 5, 1962, Aug. 30, 31, Sept. 1, 2, 6, 7, 1979, Oct. 30, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,590 ft³/s, May 17, gage height, 8.11 ft; minimum daily, 94 ft³/s Nov. 23-25, Dec. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	359	94	100	102	157	608	610	2420	1080	121	128
2	241	358	94	100	102	159	607	609	2770	1080	121	128
3	252	357	95	100	102	163	604	610	2570	1070	122	127
4	257	357	95	101	103	166	603	612	2320	1070	122	127
5	264	357	96	100	103	166	601	614	2140	1070	123	127
6	264	356	96	100	103	166	600	614	2020	1070	123	127
7	253	355	96	101	103	165	599	615	1920	1060	123	127
8	244	355	96	101	103	166	598	618	1850	1050	123	127
9	240	355	97	101	102	176	597	619	1760	1040	123	127
10	267	353	96	101	102	189	595	620	1590	1020	123	125
11	285	352	96	101	102	206	595	816	1410	1010	123	126
12	425	351	96	102	102	219	593	1060	1280	1000	124	126
13	515	351	97	102	102	222	591	1090	1200	992	124	126
14	426	350	97	101	102	241	590	1450	1200	670	123	125
15	381	350	97	102	103	249	589	2060	1100	454	123	126
16	366	349	98	103	103	265	588	2750	1200	451	124	127
17	365	347	98	103	103	268	588	3390	1300	450	124	127
18	365	347	98	103	103	271	592	3190	1400	333	124	127
19	363	349	98	103	105	270	596	2840	1400	120	124	128
20	362	346	98	103	106	271	598	2670	1400	120	124	128
21	363	261	98	103	106	282	602	2680	1500	120	125	128
22	361	95	98	103	105	493	602	3010	1500	120	125	128
23	362	94	98	102	106	654	602	3140	1400	120	126	129
24	360	94	98	103	106	625	605	3030	1400	120	125	130
25	360	94	98	102	113	624	608	3160	1300	120	127	130
26	358	95	98	103	136	621	613	3010	1200	120	127	130
27	359	95	98	103	150	619	613	2460	1100	119	127	132
28	358	95	99	103	152	617	612	2260	1100	120	127	132
29	358	95	99	104	154	614	613	2160	1080	120	127	133
30	358	95	99	102	---	613	608	2110	1080	120	127	134
31	361	---	100	102	---	610	---	2200	---	121	127	---
TOTAL	10307	8167	3011	3158	3184	10527	18010	56677	46910	17530	3851	3842
MEAN	332	272	97.1	102	110	340	600	1828	1564	565	124	128
MAX	515	359	100	104	154	654	613	3390	2770	1080	127	134
MIN	214	94	94	100	102	157	588	609	1080	119	121	125
AC-FT	20440	16200	5970	6260	6320	20880	35720	112400	93050	34770	7640	7620

CAL YR 1983 TOTAL 175800 MEAN 482 MAX 3630 MIN 12 AC-FT 348700
WTR YR 1984 TOTAL 185174 MEAN 506 MAX 3390 MIN 94 AC-FT 367300

10026500 BEAR RIVER NEAR RANDOLPH, UT

LOCATION.--Lat 41°48'02", long 111°04'20", in SE¼NE¼ sec.7, T.12 N., R.8 E., Rich County, Hydrologic Unit 16010101, on left bank 3.7 mi upstream from Twin Creek, 5.0 mi upstream from Utah-Wyoming State line, and 11 mi northeast of Randolph.

DRAINAGE AREA.--1,616 mi².

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft, from river-profile map. Prior to Aug. 17, 1971, 0.2 mi upstream at different datum.

REMARKS.--Records fair. Diversion for irrigation of about 94,500 acres above station. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--41 years, 213 ft³/s, 154,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,630 ft³/s, June 4, 1983, gage height, 8.58 ft; minimum discharge, 1.6 ft³/s, Nov. 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,050 ft³/s, May 26, gage height, 8.30 ft; minimum daily, 120 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297	439	180	145	150	165	801	840	2030	843	274	209
2	319	438	170	145	150	165	813	850	1980	850	278	208
3	334	435	170	140	155	170	839	820	2040	848	280	207
4	344	435	160	140	155	175	877	760	2270	854	277	207
5	338	435	150	150	160	180	899	740	2390	883	275	203
6	336	435	155	150	160	180	941	750	2320	876	273	204
7	336	438	160	145	155	170	968	760	2250	861	266	201
8	335	450	160	145	155	170	1000	791	2180	875	260	197
9	335	445	155	145	160	175	1040	814	2110	870	253	194
10	368	442	150	145	160	180	1050	843	2000	927	246	192
11	365	448	150	145	155	180	1060	846	1910	983	239	199
12	371	453	150	140	155	170	1050	874	1800	1090	238	215
13	389	463	150	140	160	180	1040	977	1680	1090	234	220
14	515	466	150	140	160	190	1030	1120	1520	1080	231	227
15	525	460	155	135	155	190	1080	1210	1340	1090	227	218
16	485	459	155	130	160	200	1120	1290	1160	969	232	215
17	455	463	155	130	160	210	1170	1440	1040	724	236	212
18	443	463	150	125	160	220	1170	1760	1000	602	235	209
19	435	462	145	120	155	230	1100	2320	995	593	237	205
20	429	463	145	125	155	240	1040	2550	993	438	252	202
21	431	450	140	130	160	260	980	2540	969	374	259	210
22	433	400	130	130	165	300	1000	2530	958	474	246	223
23	434	300	130	140	160	320	950	2600	959	425	244	235
24	440	260	130	145	160	330	900	2720	967	403	236	237
25	438	290	125	150	160	350	830	2780	1020	362	232	243
26	435	250	130	155	165	470	760	2840	999	336	236	240
27	436	220	135	165	170	763	720	2860	923	313	233	235
28	435	210	135	165	170	846	710	2790	892	298	227	231
29	436	200	130	160	170	825	740	2580	865	292	213	224
30	435	190	135	155	---	800	790	2380	842	285	213	220
31	435	---	140	150	---	799	---	2160	---	277	211	---
TOTAL	12542	11762	4575	4425	4615	9803	28468	51135	44402	21185	7593	6442
MEAN	405	392	148	143	159	316	949	1650	1480	683	245	215
MAX	525	466	180	165	170	846	1170	2860	2390	1090	280	243
MIN	297	190	125	120	150	165	710	740	842	277	211	192
AC-FT	24880	23330	9070	8780	9150	19440	56470	101400	88070	42020	15060	12780

CAL YR 1983 TOTAL 204676 MEAN 561 MAX 3500 MIN 100 AC-FT 406000
WTR YR 1984 TOTAL 206947 MEAN 565 MAX 2860 MIN 120 AC-FT 410500

10028500 BEAR RIVER BELOW PIXLEY DAM, NEAR COKEVILLE, WY

LOCATION.--Lat 41°56'20", long 110°59'05", in SE¼SE¼ sec.25, T.23 N., R.120 W., Lincoln County, Hydrologic Unit 16010102, 800 ft downstream from Pixley Dam, 11 mi south of Cokeville, and 17.5 mi downstream from Twin Creek.

DRAINAGE AREA.--2,032 mi².

PERIOD OF RECORD.--October 1941 to November 1943 (published as Bear River near Cokeville), October 1952 to September 1956, May 1958 to current year (irrigation seasons only). Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,185 ft, from river-profile map. Oct. 31, 1941, to Nov. 30, 1943, at site 200 ft downstream at different datum.

REMARKS.--Records fair. Natural flow of stream affected by diversions for irrigation, return flow from irrigated areas, and regulation by upstream reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,300 ft³/s, Mar. 25, 1956; minimum recorded, 0.24 ft³/s, Apr. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,580 ft³/s, May 27, 28; minimum recorded, 228 ft³/s, Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								918	1400	796	338	246
2								932	1350	784	344	242
3								961	1330	786	361	242
4								999	1340	784	334	240
5								1000	1390	764	326	237
6								977	1450	772	320	246
7								937	1470	767	312	244
8								908	1450	762	303	240
9								922	1420	772	299	235
10								949	1400	774	290	228
11								977	1370	786	284	235
12								994	1330	813	278	260
13								968	1300	852	280	264
14								1030	1270	980	273	262
15								1080	1220	980	269	256
16								1110	1170	980	271	251
17								1130	1100	850	299	249
18								1160	1020	700	282	246
19								1220	953	600	280	242
20								1400	925	550	293	239
21								1520	906	450	312	244
22								1530	885	520	297	256
23								1530	838	535	290	275
24								1540	754	503	290	286
25								1540	756	468	288	293
26								1560	779	423	291	295
27								1580	794	403	284	288
28								1580	806	382	275	266
29								1560	794	369	262	266
30								1520	808	359	256	242
31								1460	---	365	249	---
TOTAL								37492	33778	20629	9130	7615
MEAN								1209	1126	665	295	254
MAX								1580	1470	980	361	295
MIN								908	754	359	249	228
AC-FT								74370	67000	40920	18110	15100

10032000 SMITHS FORK NEAR BORDER, WY

LOCATION.--Lat 42°17'16", long 110°52'14", in NW¼ sec.33, T.27 N., R.118 W., Lincoln County, Hdyrologic Unit 16010102, on left bank 4.5 mi upstream from Howland Creek, 6 mi downstream from Hobble Creek, and 12 mi northeast of Border.

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1734: 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,680 ft, from topographic map. Prior to Oct. 16, 1945, at site 0.8 mi downstream at different datum.

REMARKS.--Records poor. One diversion for irrigation of about 200 acres above station.

AVERAGE DISCHARGE.--42 years, 200 ft³/s, 144,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s, May 29, 1983, gage height, 5.45 ft; minimum, 21 ft³/s, Mar. 29, 1975, Jan. 24, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,820 ft³/s, May 16, gage height, 5.52 ft; minimum, 64 ft³/s, Feb. 27, Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	116	90	82	73	88	87	167	1600	704	297	165
2	150	114	88	80	75	84	87	174	1390	669	293	164
3	151	114	88	84	72	84	83	185	1250	640	236	158
4	140	113	88	92	76	82	84	189	1140	620	273	148
5	136	115	89	100	76	81	88	201	1110	600	267	142
6	134	116	90	88	73	87	91	197	1050	579	265	155
7	131	118	90	80	77	86	91	194	1020	558	245	165
8	130	119	86	80	73	82	91	214	956	544	226	165
9	131	108	84	84	72	84	95	270	890	533	219	158
10	143	114	84	80	73	83	93	339	840	526	212	142
11	134	114	85	80	80	84	93	387	823	506	206	143
12	130	113	86	80	90	84	89	535	783	486	212	179
13	128	115	86	78	100	83	92	818	755	470	203	173
14	134	113	86	76	95	85	89	1080	761	458	198	160
15	132	105	84	70	90	84	96	1370	804	437	198	153
16	128	109	80	70	90	86	109	1530	872	422	212	147
17	127	113	79	70	96	82	136	1130	919	406	222	138
18	125	111	76	70	90	85	179	1030	935	384	203	132
19	123	109	78	70	85	82	210	1060	923	368	204	133
20	122	109	78	70	84	86	206	1210	913	362	280	137
21	120	106	74	76	82	85	179	1330	907	372	248	130
22	120	100	70	82	80	86	173	1160	888	407	232	160
23	120	104	69	88	84	83	177	1150	859	407	233	150
24	124	105	68	94	80	84	179	1450	830	370	229	180
25	119	109	68	98	82	86	182	1340	805	352	218	170
26	119	104	70	90	86	87	175	1230	790	369	223	155
27	117	107	71	84	83	81	165	1110	779	344	208	145
28	116	105	70	80	89	82	163	1080	762	335	195	140
29	116	106	68	78	94	86	167	1110	738	334	183	140
30	114	94	72	70	---	85	161	1220	722	323	172	135
31	116	---	86	71	---	86	---	1470	---	308	166	---
TOTAL	3970	3298	2483	2495	2400	2613	3910	25930	27814	14193	7028	4562
MEAN	128	110	80.1	80.5	82.8	84.3	130	836	927	458	227	152
MAX	151	119	90	100	100	88	210	1530	1600	704	297	180
MIN	114	94	68	70	72	81	83	167	722	308	166	130
AC-FT	7870	6540	4930	4950	4760	5180	7760	51430	55170	28150	13940	9050

CAL YR 1983 TOTAL 103627 MEAN 284 MAX 1800 MIN 58 AC-FT 205500
WTR YR 1984 TOTAL 100696 MEAN 275 MAX 1600 MIN 68 AC-FT 199700

10035000 SMITHS FORK AT COKEVILLE, WY

LOCATION.--Lat 42°05'47", long 110°56'24", in NE¼NW¼NW¼ sec.4, T.24 N., R.119 W., Lincoln County, Hydrologic Unit 16010102, 900 ft upstream from U.S. Highway 30N, 1 mi northeast of Cokeville, and 2 mi upstream from mouth.

DRAINAGE AREA.--275 mi².

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN 08...	1330	E1000	9.0	<.01	<.01	<.01	<.01	<.010	<.010
JUL 11...	1630	E300	20.0	<.01	<.01	<.01	<.01	<.010	<.010
SEP 10...	1630	E200	17.0	<.01	<.01	<.01	<.01	<.010	<.010

E-Estimate.

10038000 BEAR RIVER BELOW SMITHS FORK, NEAR COKEVILLE, WY

LOCATION.--Lat 42°07'36", long 110°58'21", in SE¼NE¼ sec.28, T.25 N., R.119 W., Lincoln County, Hydrologic Unit 16010102, on left bank 1.1 mi upstream from Wyman Dam, 2.8 mi northwest of Cokeville, and 3.8 mi downstream from Smiths Fork.

DRAINAGE AREA.--2,447 mi².

PERIOD OF RECORD.--April 1954 to current year.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,140 ft, from river-profile map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by diversion for irrigation, return flow from irrigated areas, and regulation by upstream reservoirs.

AVERAGE DISCHARGE.--30 years, 469 ft³/s, 339,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,620 ft³/s, June 7, 1983, gage height, 8.75 ft; minimum, 31 ft³/s, Oct. 4, 5, 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,630 ft³/s, May 25, gage height, 8.09 ft; minimum, daily, 300 ft³/s, Jan. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566	690	390	340	360	384	1330	1370	4540	1700	632	472
2	588	690	386	340	370	399	1260	1390	4360	1640	615	463
3	644	690	375	340	370	402	1230	1440	4060	1550	644	459
4	638	684	370	350	380	407	1260	1490	3900	1590	621	461
5	638	684	370	360	380	432	1290	1550	3810	1520	604	460
6	621	684	380	350	380	395	1360	1520	3780	1510	594	477
7	621	678	392	350	370	393	1430	1450	3850	1490	573	467
8	615	690	381	350	380	408	1510	1410	3850	1450	554	459
9	621	678	370	350	370	412	1610	1480	3780	1450	544	451
10	655	678	370	350	380	427	1650	1640	3660	1450	538	439
11	706	690	370	350	380	406	1660	1770	3590	1440	531	456
12	691	690	370	340	370	407	1660	1900	3400	1410	529	527
13	681	708	370	340	380	437	1650	2170	3250	1460	523	528
14	707	720	370	330	370	449	1640	2470	3140	1540	523	496
15	824	702	370	320	380	462	1610	2700	3030	1610	515	491
16	844	690	370	310	380	483	1600	3090	3000	1580	522	474
17	802	702	370	310	380	494	1640	3030	2940	1530	545	462
18	770	714	370	300	380	513	1720	2840	2830	1260	538	451
19	744	702	370	300	370	533	1810	2820	2690	1050	545	443
20	732	708	350	310	370	539	1880	2930	2540	963	596	436
21	726	702	330	320	380	560	1850	3250	2410	850	586	458
22	714	655	330	330	381	589	1770	3660	2290	909	572	474
23	702	437	320	340	370	609	1700	3870	2190	956	556	496
24	720	442	310	350	375	641	1660	4110	1970	896	559	571
25	720	544	310	370	379	737	1680	4570	1840	812	552	555
26	708	437	320	390	381	826	1650	4450	1780	774	547	551
27	702	442	330	390	401	849	1570	4420	1760	720	536	540
28	702	452	320	380	384	898	1480	4450	1750	708	521	517
29	696	428	320	380	400	1060	1420	4440	1710	678	506	492
30	684	428	340	370	---	1300	1370	4440	1710	667	484	480
31	690	---	350	360	---	1510	---	4480	---	655	477	---
TOTAL	21472	18839	11044	10670	10951	18361	46950	86600	89410	37818	17182	14506
MEAN	693	628	356	344	378	592	1565	2794	2980	1220	554	484
MAX	844	720	392	390	401	1510	1880	4570	4540	1700	644	571
MIN	566	428	310	300	360	384	1230	1370	1710	655	477	436
AC-FT	42590	37370	21910	21160	21720	36420	93130	171800	177300	75010	34080	28770

CAL YR 1983 TOTAL 369988 MEAN 1014 MAX 5400 MIN 250 AC-FT 733900
WTR YR 1984 TOTAL 383803 MEAN 1049 MAX 4570 MIN 300 AC-FT 761300

10039500 BEAR RIVER AT BORDER, WY

LOCATION.--Lat 42°12'40", long 111°03'11", in NE¼NE¼NE¼ sec.15, T.14 S., R.46 E., Bear Lake County, ID, Hydrologic Unit 16010102, on left bank 0.2 mi west of Idaho-Wyoming State line, 0.5 mi west of Border, and 2.1 mi upstream from Thomas Fork.

DRAINAGE AREA.--2,486 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WDR UT-1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,051.63 ft, National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Records fair. Natural flow of stream affected by regulation by upstream reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--46 years, 435 ft^3/s, 315,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft^3/s, June 7, 1983, gage height, 9.69 ft; minimum, 24 ft^3/s, Apr. 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,880 ft^3/s, June 7, gage height, 9.69 ft; minimum daily, 270 ft^3/s, Feb. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	584	687	400	350	370	400	1290	1380	4390	1640	684	477
2	596	684	400	350	380	410	1220	1400	4340	1590	661	466
3	644	684	390	350	380	420	1190	1440	4150	1530	667	455
4	641	684	380	360	390	430	1190	1490	3980	1520	661	455
5	635	680	380	370	390	440	1210	1530	3910	1490	638	455
6	622	680	390	360	390	410	1260	1540	3880	1460	622	474
7	609	687	400	360	380	400	1330	1490	3910	1450	600	470
8	600	707	390	360	390	420	1420	1440	3950	1410	581	462
9	600	694	380	360	380	420	1480	1460	3890	1400	566	448
10	625	697	380	360	390	440	1510	1570	3820	1410	556	434
11	667	704	380	360	390	420	1520	1690	3740	1390	547	437
12	667	714	380	350	380	430	1520	1800	3600	1380	544	515
13	651	748	380	350	390	450	1520	1950	3470	1400	535	532
14	657	745	380	340	380	460	1520	2290	3360	1450	529	500
15	748	728	380	330	390	480	1510	2770	3260	1510	526	492
16	794	711	380	320	390	490	1510	3100	3200	1500	526	462
17	762	721	380	320	390	510	1550	3350	3140	1470	541	452
18	738	738	380	310	390	540	1660	3260	3040	1300	550	437
19	717	731	380	310	380	560	1770	3200	2900	1120	541	423
20	711	734	360	320	380	570	1840	3210	2720	1050	600	416
21	700	734	340	330	390	590	1820	3320	2500	969	584	441
22	690	690	340	340	390	620	1750	3620	2350	1000	578	466
23	687	500	330	350	380	640	1690	3860	2200	1070	559	496
24	697	500	320	370	390	680	1650	4000	2030	984	566	572
25	704	600	320	390	390	760	1640	4230	1850	900	556	572
26	700	500	330	400	390	870	1620	4260	1750	863	553	559
27	694	526	340	400	410	880	1570	4230	1740	801	544	547
28	694	572	330	390	400	920	1480	4260	1710	790	529	535
29	687	562	340	390	410	1000	1430	4300	1660	755	515	506
30	684	450	350	380	---	1100	1400	4300	1640	731	492	496
31	687	---	360	370	---	1370	---	4360	---	707	489	---
TOTAL	20892	19792	11370	11000	11250	18530	45070	86100	92080	38040	17640	14452
MEAN	674	660	367	355	388	598	1502	2777	3069	1227	569	482
MAX	794	748	400	400	410	1370	1840	4360	4390	1640	684	572
MIN	584	450	320	310	370	400	1190	1380	1640	707	489	416
AC-FT	41440	39260	22550	21820	22310	36750	89400	170800	182600	75450	34990	28670

CAL YR 1983 TOTAL 380170 MEAN 1042 MAX 4840 MIN 270 AC-FT 754100
WTR YR 1984 TOTAL 386216 MEAN 1055 MAX 4390 MIN 310 AC-FT 766100

10039500 BEAR RIVER AT BORDER, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976, January 1978 to September 1981.
WATER TEMPERATURES: October 1965 to September 1976, January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,580 micromhos Dec. 27, 1975; minimum daily, 312 micromhos Apr. 3, 1969.
WATER TEMPERATURES: Maximum, 23.5°C Aug. 14, 1980; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 25...	0820	743	--	--	9.0	--	--	--	--	--	230	55
NOV 10...	1000	700	510	8.0	2.0	17	9.0	81	140	--	240	57
DEC 06...	1550	E600	--	--	.0	--	--	--	--	--	290	65
JAN 19...	1100	255	730	8.0	.0	4.0	7.9	67	75	22	320	76
FEB 28...	1415	E350	--	--	.0	--	--	--	--	--	300	72
MAR 06...	1100	239	650	8.1	.0	4.7	7.7	66	250	140	270	65
APR 09...	1630	1600	--	--	4.0	--	--	--	--	--	310	59
MAY 24...	1000	5120	600	8.0	9.0	20	8.7	94	220	320	280	60
JUN 08...	1230	4080	--	--	11.0	--	--	--	--	--	230	52
JUL 31...	1140	775	560	7.9	19.0	50	5.3	71	1200	500	280	64
SEP 10...	1700	303	--	--	20.0	--	--	--	--	--	260	62
27...	1130	552	520	7.8	8.5	35	--	--	25	75	240	55

E-Estimate.

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 25...	22	18	.5	.80	200	43	20	.20	3.6	--	280	.38
NOV 10...	23	20	.6	1.9	199	38	22	.20	4.2	291	290	.40
DEC 06...	32	34	.9	1.9	240	75	36	.10	7.8	--	400	.54
JAN 19...	31	31	.8	2.0	266	67	36	.20	9.6	406	410	.55
FEB 28...	29	27	.7	1.8	240	89	28	.20	8.8	--	400	.54
MAR 06...	25	23	.6	2.1	236	58	27	.20	7.6	347	350	.47
APR 09...	40	49	1	4.1	270	80	54	.60	9.9	--	460	.62
MAY 24...	31	30	.8	3.9	225	53	35	.20	9.2	357	360	.49
JUN 08...	24	23	.7	2.1	200	32	21	.10	4.9	--	280	.38
JUL 31...	28	26	.7	2.2	224	58	24	.20	8.7	345	350	.47
SEP 10...	25	24	.7	1.2	200	64	25	.10	7.1	--	330	.45
27...	25	27	.8	2.2	201	72	31	.20	5.9	363	340	.49

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
25...	567	--	.00	--	--	.000	--	--	--	--	--
NOV											
10...	550	--	<.10	.000	.40	.000	.000	.000	--	--	--
DEC											
06...	--	--	.20	--	--	.090	--	--	--	--	--
JAN											
19...	280	--	.24	.000	.20	.000	.000	.000	--	--	--
FEB											
28...	--	--	.00	--	--	.160	--	--	--	--	--
MAR											
06...	224	26	.21	.120	.90	.000	.000	.000	--	--	--
APR											
09...	1980	--	.30	--	--	.080	--	--	--	--	--
MAY											
24...	4940	--	<.10	.000	1.0	.120	.000	.000	--	--	--
JUN											
08...	3070	--	.20	--	--	.010	--	--	--	--	--
JUL											
31...	722	--	<.10	.160	.80	.600	.440	.000	--	--	--
SEP											
10...	269	--	.00	--	--	.030	--	--	--	--	--
27...	541	--	<.10	<.000	.50	.120	.000	.000	512	763	95

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
10...	1000	20	1	130	.6	<1	<1	<3	2	18	11
MAR											
06...	1100	10	<1	130	<.5	1	<1	<3	7	20	5
MAY											
24...	1000	20	1	140	<1.0	<1	<1	<3	3	31	4
JUL											
31...	1140	20	<1	140	1.0	<1	<1	<3	5	27	5

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
10...	18	7	<.1	<10	2	2	<1	390	<6	11
MAR										
06...	20	11	.3	<10	1	<1	<1	430	<6	39
MAY										
24...	26	12	.8	<10	2	<1	<1	440	<6	42
JUL										
31...	26	4	<.1	<10	3	<1	<1	490	<6	11

10041000 THOMAS FORK NEAR WYOMING-IDAHO STATE LINE

LOCATION.--Lat 42°24'10", long 111°01'30", in SE¼NW¼ sec.19, T.28 N., R.119 W., Lincoln County, WY, Hydrologic Unit 16010102, on right bank 1.3 mi upstream from State line, 1.5 mi downstream from Giraffe Creek, and 3.5 mi northeast of Geneva, ID.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,280 ft, from topographic map. Prior to Aug. 23, 1957, at site 0.2 mi upstream at different datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--34 years, 56.2 ft^3/s, 40,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,280 ft^3/s, May 26, 1983, gage height, 4.30 ft; minimum, 2.6 ft^3/s, Mar. 2, 1956, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 24	2200	229	2.13	May 26	2400	*1,280	4.30
May 8	2300	669	3.30	July 2	1000	166	1.87

Minimum daily discharge, 13 ft^3/s, Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	28	23	25	19	16	32	152	373	119	59	37
2	47	28	26	23	17	18	32	176	332	115	58	36
3	43	28	27	24	18	19	33	200	329	111	57	34
4	37	27	27	27	18	17	37	212	303	108	54	33
5	34	29	25	29	17	16	36	226	329	105	53	34
6	32	29	25	25	17	19	41	212	313	102	52	38
7	32	32	24	26	19	19	42	215	300	99	49	35
8	32	32	27	24	17	20	45	257	294	98	47	35
9	33	28	27	25	17	21	48	333	267	96	46	34
10	41	28	27	24	17	21	47	411	262	96	46	32
11	34	30	26	26	18	22	44	473	262	92	45	35
12	32	30	25	22	18	21	43	620	240	90	45	52
13	31	30	24	20	20	25	43	879	229	89	43	35
14	33	30	27	17	18	23	46	1200	218	85	43	32
15	32	31	27	16	17	23	53	1450	211	82	44	32
16	31	33	27	12	19	22	72	1320	206	79	45	32
17	30	30	25	12	20	22	98	976	201	77	46	31
18	30	30	25	12	19	22	133	874	194	75	42	30
19	29	28	25	13	18	22	163	868	184	74	51	30
20	28	28	25	15	17	23	150	897	177	74	52	30
21	28	27	24	18	18	24	128	850	168	78	43	40
22	28	25	23	22	19	25	137	709	160	80	41	33
23	28	24	23	25	18	25	154	674	156	76	43	47
24	30	28	23	25	17	26	161	762	149	68	41	47
25	28	28	23	26	20	26	161	630	144	67	41	40
26	28	25	25	25	17	26	145	538	140	66	40	39
27	27	24	23	22	14	26	136	487	135	65	39	38
28	27	27	23	21	14	33	138	455	131	69	38	36
29	27	26	23	20	15	27	139	424	127	67	37	34
30	27	23	25	17	---	29	134	405	124	62	36	32
31	29	---	29	18	---	31	---	436	---	60	37	---
TOTAL	986	846	778	656	512	709	2671	18321	6658	2624	1413	1073
MEAN	31.8	28.2	25.1	21.2	17.7	22.9	89.0	591	222	84.6	45.6	35.8
MAX	47	33	29	29	20	33	163	1450	373	119	59	52
MIN	27	23	23	12	14	16	32	152	124	60	36	30
AC-FT	1960	1680	1540	1300	1020	1410	5300	36340	13210	5200	2800	2130

CAL YR 1983 TOTAL 35349 MEAN 96.8 MAX 1010 MIN 13 AC-FT 70110
WTR YR 1984 TOTAL 37247 MEAN 102 MAX 1450 MIN 12 AC-FT 73880

SNAKE RIVER MAIN STEM

13011000 SNAKE RIVER NEAR MORAN, WY

LOCATION.--Lat 43°51'31", long 110°35'09", in SW¼SE¼ sec.18, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 1,000 ft downstream from Jackson Lake Dam, 4.1 mi west of Moran, and at mile 988.7.

DRAINAGE AREA.--807 mi². Mean altitude, 8,040 ft.

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "South Fork Snake River at Moran" prior to October 1910 and as "Snake River at Moran" October 1910 to September 1968.

REVISED RECORDS.--WSP 1217: 1944(m). WSP 1347: 1906-10. WRD ID 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,727.84 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to June 13, 1917, nonrecording gage, and June 14, 1917, to May 20, 1940, water-stage recorder, at site 1.5 mi downstream at different datums.

REMARKS.--Records excellent. Flow regulated by Jackson Lake.

COOPERATION.--Gage readings for current reporting purposes furnished by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--81 years, 1,449 ft³/s, 1,050,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s, June 12, 1918, gage height, 10.41 ft, site and datum then in use; maximum gage height, 10.74 ft, June 25, 1981; minimum discharge, 0.30 ft³/s, Oct. 26, 27, 28, 1969, gage height, 0.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood during early June 1894 was considererably higher than that of June 12, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,130 ft³/s, July 11, gage height, 9.59 ft; minimum, 97 ft³/s, Nov. 4, gage height, 1.73 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	981	808	826	608	510	496	1390	6210	3520	2380	2920
2	543	981	807	826	608	510	486	1530	6220	3840	2380	2910
3	507	981	810	826	571	500	486	1860	6240	5150	2380	2900
4	506	894	812	826	510	500	488	2350	5700	6160	2500	4050
5	505	994	810	826	510	501	490	2630	4130	6500	2490	5370
6	502	994	807	826	515	500	490	2620	4130	6470	2480	5330
7	491	1010	811	826	515	501	489	2660	4140	6740	2580	5270
8	481	1310	812	826	515	500	490	2600	4140	7250	2860	5240
9	483	1590	814	826	515	500	490	2600	4140	7830	2850	5200
10	482	1490	813	826	515	500	488	2590	4150	8620	2820	5150
11	689	1420	814	826	515	500	487	2590	4170	8980	2810	4400
12	826	1420	814	826	515	501	485	2590	4160	8930	2800	4610
13	826	1420	814	826	515	496	486	2590	3650	8920	2790	3360
14	1020	1420	814	826	515	495	486	2600	991	8970	2770	5520
15	1130	1420	814	826	515	496	486	2610	1020	8960	2710	5590
16	1130	1420	814	832	515	499	487	2610	1020	9000	2710	5650
17	1120	1190	815	832	515	495	486	2610	1020	9020	2700	5670
18	1120	1410	814	832	515	495	491	2620	2140	8370	2700	5700
19	1130	1410	814	832	515	495	491	2620	4210	5730	2700	5780
20	1130	1410	814	750	516	497	491	2630	2980	3420	2740	5860
21	946	1410	816	614	517	500	491	2640	2110	3110	2780	6330
22	832	1410	820	614	510	500	495	2650	2440	3070	2780	6600
23	832	1180	820	614	511	495	571	2660	3090	3070	2780	6570
24	1020	815	820	614	512	495	718	2680	3110	2930	2770	6690
25	1120	807	826	614	510	495	783	2690	3120	2570	2770	6650
26	1120	807	826	608	511	495	1000	2700	3160	2380	2780	6540
27	1120	807	826	608	512	495	1120	2690	2770	2390	2800	6430
28	1120	807	826	608	512	495	1270	2700	2510	2390	2790	6320
29	1120	808	826	608	512	496	1270	3280	2500	2390	2780	6220
30	1120	807	826	608	---	498	1270	4210	3150	2390	2840	3120
31	1090	---	826	608	---	496	---	5770	---	2380	2920	---
TOTAL	26601	34823	25303	23186	15140	15451	18757	83570	102521	171450	83940	157950
MEAN	858	1161	816	748	522	498	625	2696	3417	5531	2708	5265
MAX	1130	1590	826	832	608	510	1270	5770	6240	9020	2920	6690
MIN	481	807	807	608	510	495	485	1390	991	2380	2380	2900
AC-FT	52760	69070	50190	45990	30030	30650	37200	165800	203400	340100	166500	313300

CAL YR 1983 TOTAL 632338 MEAN 1732 MAX 9030 MIN 481 AC-FT 1254000
WTR YR 1984 TOTAL 758692 MEAN 2073 MAX 9020 MIN 481 AC-FT 1505000

AVAILABLE

13011500 PACIFIC CREEK AT MORAN, WY

LOCATION.-- Lat 43°51'04", long 110°30'59", in SW¼NW¼ sec. 23, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 40 ft upstream from bridge on U.S. Highway 287, at Moran, and at mile 0.5.

DRAINAGE AREA.-- 169 mi². Mean altitude, 8,160 ft.

PERIOD OF RECORD.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1975, July 1978 to current year. Published as "near Moran" prior to October 1968.

GAGE.--Water-stage recorder. Altitude of gage is 6,720 ft, from topographic map. July 31 to Nov. 11, 1906, nonrecording gage at site 0.4 mi downstream at different datum. July 20, 1917, to Sept. 30, 1918, nonrecording gage at site 0.1 mi downstream at different datum. Sept. 23, 1944, to Nov. 13, 1959, at site 100 ft upstream at same datum. Nov. 14, 1959, to Sept. 24, 1975, at site 35 ft downstream at same datum.

REMARKS.--Records fair. No gage-height record Oct. 1-11, Nov. 10-17, Feb. 19 to Mar. 12, May 8-14, July 26 to Aug. 13, Aug. 22 to Sept. 9. No diversion or regulation.

AVERAGE DISCHARGE.--37 years (water years 1944-75, 1979-84), 269 ft³/s, 21.62 in/yr, 194,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,350 ft³/s, May 29, 1983, gage height, 6.33 ft; minimum daily, 19 ft³/s, Dec. 31, 1979.

EXTREMES FOR CURRENT YEAR.-- Peak discharges above base of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 16	0330	1,570	5.42	May 31	2315	*2,790	*6.13
May 20	0100	1,420	5.32	June 17	0100	1,710	5.43
May 24	1100	1,780	5.57				

Minimum daily discharge, 47 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	100	94	78	54	74	67	133	2050	831	168	94
2	82	103	98	77	58	69	66	139	1620	763	196	86
3	112	111	100	76	56	65	66	149	1610	711	170	82
4	100	105	93	78	60	63	67	142	1390	660	152	77
5	94	102	88	80	59	59	70	146	1450	600	150	71
6	88	106	93	77	58	63	70	149	1350	537	148	77
7	82	98	97	74	56	67	71	146	1230	515	142	82
8	76	88	102	72	60	70	72	160	1140	486	138	78
9	70	94	108	68	59	73	71	178	992	438	134	83
10	98	98	113	66	60	76	70	208	905	387	130	72
11	120	102	110	68	62	74	68	210	894	374	124	69
12	133	106	107	65	64	73	60	250	896	346	122	68
13	115	102	114	63	66	75	58	390	1030	313	136	65
14	118	96	120	61	68	74	62	650	1140	282	118	62
15	106	92	108	62	65	71	71	1090	1450	262	109	60
16	95	87	100	59	62	69	90	1280	1450	247	144	70
17	84	96	97	51	60	68	124	910	1540	230	146	68
18	87	93	92	47	58	67	164	920	1480	214	119	62
19	73	90	98	49	57	68	210	1060	1350	212	107	57
20	80	86	95	48	56	68	210	1310	1410	222	108	55
21	88	85	92	56	57	67	174	1260	1360	227	104	70
22	80	84	86	61	60	69	171	1030	1320	233	99	93
23	93	91	80	64	63	71	174	1140	1190	291	98	101
24	116	96	76	67	66	72	171	1740	1140	228	102	108
25	105	99	80	68	68	74	160	1390	1160	210	92	92
26	106	95	84	63	65	70	149	1150	1150	255	108	84
27	103	94	78	62	64	68	142	1090	1090	220	100	84
28	101	100	75	60	70	66	130	1130	1060	190	92	83
29	98	94	70	58	72	64	125	1440	1010	212	86	77
30	95	89	75	56	---	66	133	1840	983	190	81	73
31	98	---	74	55	---	68	---	2420	---	168	87	---
TOTAL	3016	2882	2897	1989	1783	2141	3336	25250	37840	11054	3810	2303
MEAN	97.3	96.1	93.5	64.2	61.5	69.1	111	815	1261	357	123	76.8
MAX	133	111	120	80	72	76	210	2420	2050	831	196	108
MIN	70	84	70	47	54	59	58	133	894	168	81	55
AC-FT	5980	5720	5750	3950	3540	4250	6620	50080	75060	21930	7560	4570

CAL YR 1983 TOTAL 119882 MEAN 328 MAX 3870 MIN 33 AC-FT 237800
WTR YR 1984 TOTAL 98301 MEAN 269 MAX 2420 MIN 47 AC-FT 195000

13011900 BUFFALO FORK ABOVE LAVA CREEK, NEAR MORAN, WY

LOCATION.--Lat 43°50'14", long 110°26'21", in SE¼NE¼ sec.29, T.45 N., R.113 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on right bank underneath bridge on U.S. Highway 26, 287, about 2 mi upstream from Lava Creek, 3.5 mi east of Moran, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--323 mi^2.

PERIOD OF RECORD.--September 1965 to current year. July to November 1906, July 1917 to September 1918, and September 1944 to September 1960 at sites about 3 mi downstream.

REVISED RECORDS.--WRD ID 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,772.78 ft, National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark).

REMARKS.--Records good except those for periods of ice effect, which are fair. No regulation or significant diversions above station.

AVERAGE DISCHARGE.--19 years (water years 1966-84), 566 ft^3/s, 410,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,540 ft^3/s, June 9, 1981, gage height, 8.61 ft; minimum daily, 77 ft^3/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 1	0330	*4,040	*6.45	June 28	0445	3,750	6.27

Minimum daily discharge, 96 ft^3/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346	250	176	130	160	244	142	235	3310	2820	824	347
2	323	248	182	132	158	230	138	245	2400	2510	860	329
3	340	253	188	130	170	220	135	253	2340	2510	749	317
4	313	245	178	132	168	170	136	251	1970	2380	685	311
5	305	255	168	136	168	150	143	264	1860	2470	677	307
6	300	258	172	134	166	160	143	259	1730	2290	670	320
7	290	250	176	132	180	192	144	253	1540	2160	619	329
8	280	240	178	128	182	198	142	266	1420	2330	573	312
9	277	248	180	124	180	202	145	302	1280	2080	545	345
10	305	255	188	122	198	210	140	341	1190	1710	515	312
11	310	268	168	128	210	200	138	343	1160	1560	490	298
12	292	258	160	126	220	194	121	390	1100	1490	477	324
13	285	250	168	122	230	198	118	569	1250	1540	511	295
14	297	238	174	118	238	196	131	972	1630	1460	480	286
15	310	232	162	114	220	182	148	1460	1980	1290	448	280
16	285	230	154	116	210	178	176	1850	2090	1230	504	307
17	285	240	148	108	200	172	218	1340	2380	1140	497	292
18	290	236	144	96	190	168	258	1280	2560	1080	435	276
19	260	226	148	98	178	160	287	1400	2320	1060	415	269
20	268	212	138	97	168	162	279	1730	2610	1040	425	267
21	270	202	128	116	170	158	252	1620	2730	1010	404	282
22	268	184	122	140	178	154	251	1320	2870	1200	388	312
23	272	192	114	144	188	150	262	1390	2580	1420	383	320
24	282	206	110	160	194	158	254	2000	2660	1250	389	318
25	253	220	122	178	200	160	246	1580	2930	1050	374	294
26	258	210	130	176	194	156	232	1350	3260	1250	397	291
27	250	200	124	178	192	150	221	1290	3320	1020	364	297
28	245	210	122	174	210	144	222	1280	3320	974	355	282
29	243	190	118	168	230	136	225	1590	3220	1020	340	272
30	238	162	128	160	---	138	227	2220	3410	942	328	276
31	248	---	122	152	---	140	---	3220	---	838	334	---
TOTAL	8788	6868	4690	4169	5550	5430	5674	32863	68420	48124	15455	9067
MEAN	283	229	151	134	191	175	189	1060	2281	1552	499	302
MAX	346	268	188	178	238	244	287	3220	3410	2820	860	347
MIN	238	162	110	96	158	136	118	235	1100	838	328	267
AC-FT	17430	13620	9300	8270	11010	10770	11250	65180	135700	95450	30650	17980

CAL YR 1983 TOTAL 198165 MEAN 543 MAX 3180 MIN 110 AC-FT 393100
WTR YR 1984 TOTAL 215098 MEAN 588 MAX 3410 MIN 96 AC-FT 426600

13018300 CACHE CREEK NEAR JACKSON, WY
(Hydrologic bench-mark station)

LOCATION.--Lat 43°27'08", long 110°42'12", in SW¼SW¼SE¼ sec.1, T.40 N., R.116 W., Teton County, Hydrologic Unit 17040103, Teton National Forest, on right bank 0.7 mi upstream from Salt Lick Draw, 2.4 mi southeast of Jackson, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--10.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1962 to current year.

REVISED RECORDS.--WDR WY-76-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,750 ft, from topographic map.

REMARKS.--Records good except those for winter months, which are fair. No diversion above station.

AVERAGE DISCHARGE.--22 years, 13.7 ft³/s, 9,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s, June 24, 1971, gage height, 3.90 ft; maximum gage height, 3.97 ft, June 7, 1972; minimum daily discharge, 2.1 ft³/s, Jan. 1, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 52 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
May 31	1800	*80	*2.93
June 17	0030	60	2.72

Minimum daily discharge, 4.3 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	7.4	6.2	6.4	5.7	6.4	7.6	10	71	48	19	10
2	9.3	7.6	6.3	6.4	5.8	6.6	7.6	10	60	46	19	10
3	9.4	7.4	6.4	6.4	6.0	6.6	7.5	10	61	44	18	10
4	9.2	7.3	6.6	6.2	6.2	6.5	7.5	10	57	43	18	9.9
5	8.9	7.9	7.5	6.4	6.2	6.3	7.8	10	55	42	17	10
6	8.7	7.4	9.7	6.4	6.2	6.5	8.0	9.9	54	41	17	10
7	8.6	8.1	6.9	6.4	6.4	6.8	8.0	9.9	50	40	16	9.8
8	8.5	7.6	6.7	6.4	6.8	7.0	8.5	10	48	39	16	9.7
9	8.9	7.4	6.6	6.4	6.8	7.0	8.2	11	45	38	15	9.6
10	9.0	7.1	6.8	6.4	6.6	7.2	8.2	12	44	36	15	9.3
11	9.0	7.1	7.0	6.4	6.6	7.2	8.2	12	42	35	14	10
12	8.7	7.0	7.2	6.2	6.6	7.4	8.1	15	39	34	14	9.7
13	8.5	7.0	7.2	6.1	6.8	7.4	8.3	19	40	33	14	9.1
14	9.4	6.5	7.2	5.9	6.4	7.6	8.3	28	45	32	13	8.9
15	8.9	6.5	7.1	5.6	5.7	7.6	9.0	39	52	31	13	8.9
16	8.6	7.0	7.0	5.7	5.5	7.6	10	42	56	30	14	8.8
17	8.3	6.6	6.9	4.9	5.7	7.6	12	34	58	29	13	8.6
18	8.3	6.5	6.5	4.3	5.4	7.6	14	32	56	28	13	8.2
19	8.1	6.5	6.4	4.4	5.2	7.5	14	34	53	27	13	8.2
20	8.0	6.4	6.2	4.4	5.1	7.6	13	38	55	26	13	8.2
21	7.6	6.3	6.0	4.6	5.4	7.6	12	38	54	26	12	9.1
22	7.6	6.0	5.8	4.8	6.0	7.6	12	36	52	26	12	8.3
23	7.8	5.8	5.6	4.7	6.2	7.5	12	38	50	25	12	8.7
24	7.8	5.7	5.2	5.3	6.2	7.6	12	47	49	24	12	8.2
25	7.4	6.6	4.8	5.8	6.2	7.6	12	44	50	24	12	7.9
26	7.4	6.7	7.0	5.7	6.2	7.6	11	41	50	23	12	7.8
27	7.4	6.2	6.8	5.7	6.1	7.4	11	41	49	23	11	7.5
28	7.2	6.4	6.4	5.7	6.2	7.2	11	42	48	21	11	7.4
29	7.3	6.8	6.8	5.8	6.4	7.6	11	48	49	22	11	7.3
30	7.2	5.3	6.8	5.8	---	7.5	10	59	49	20	10	7.2
31	7.5	---	6.6	5.9	---	7.6	---	76	---	20	11	---
TOTAL	257.7	204.1	206.2	177.5	176.6	224.8	297.8	905.8	1541	976	430	266.3
MEAN	8.31	6.80	6.65	5.73	6.09	7.25	9.93	29.2	51.4	31.5	13.9	8.88
MAX	9.4	8.1	9.7	6.4	6.8	7.6	14	76	71	48	19	10
MIN	7.2	5.3	4.8	4.3	5.1	6.3	7.5	9.9	39	20	10	7.2
AC-FT	511	405	409	352	350	446	591	1800	3060	1940	853	528

CAL YR 1983 TOTAL 5477.8 MEAN 15.0 MAX 95 MIN 4.0 AC-FT 10870
WTR YR 1984 TOTAL 5663.8 MEAN 15.5 MAX 76 MIN 4.3 AC-FT 11230

13018300 CACHE CREEK NEAR JACKSON, WY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
16...	1317	7.1	349	8.5	.0	1.6	11.2	98	K15	K12	190	50
DEC												
14...	1438	7.2	325	--	.5	--	--	--	--	--	--	--
JAN												
27...	1550	6.6	317	8.4	1.0	.90	11.3	100	37	24	170	44
MAR												
14...	1600	7.6	312	8.6	2.0	.90	11.0	102	180	62	180	46
APR												
18...	1525	14	335	--	3.0	--	--	--	--	--	--	--
MAY												
14...	1517	28	334	8.7	5.0	3.0	10.2	101	83	53	190	51
JUL												
16...	1823	29	293	8.6	10.0	4.5	9.2	104	K13	270	170	45
AUG												
13...	1842	14	345	--	12.0	--	--	--	--	--	--	--
SEP												
10...	1716	9.3	315	8.6	8.0	1.8	9.6	103	K16	330	180	47

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV											
16...	15	2.6	.0	.70	184	5.2	.80	<.10	4.9	183	190
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	14	2.8	.0	.80	178	5.8	.90	<.10	4.6	176	180
MAR											
14...	15	2.8	.0	.80	182	5.5	.70	.10	4.8	169	190
APR											
18...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	14	4.5	.1	1.0	180	12	.90	<.10	5.9	218	200
JUL											
16...	13	1.7	.0	.70	157	4.3	.80	.10	4.3	--	160
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
10...	14	2.0	.0	1.1	168	5.4	.60	.10	4.8	165	180

13018300 CACHE CREEK NEAR JACKSON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 16...	.25	3.5	<.10	.040	.40	.010	.010	<.010	14	.27	--
DEC 14...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	.24	3.1	<.10	.020	.30	<.010	<.010	.020	5	.09	--
MAR 14...	.23	3.5	<.10	.040	.20	.010	.010	.040	51	1.0	--
APR 18...	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	.30	16	.15	.070	.90	.150	.010	.020	245	19	80
JUL 16...	.22	13	<.10	.060	.20	.030	.030	<.010	43	3.4	55
AUG 13...	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	.22	4.1	<.10	.010	.20	.010	.010	.020	52	1.3	44

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
NOV 16...	1317	<10	<1	41	<.5	<1	<1	<3	<1	4
MAY 14...	1517	20	<1	55	1.0	<1	<1	<3	2	16

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 16...	1	3	<.1	<10	<1	<1	<1	72	<6	8
MAY 14...	<1	10	.7	<10	<1	<1	<1	130	<6	8

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
SEP 10...	1716	3.8	<.4	2.2	<.4	2.6	2.6	.06	.8

13018750 SNAKE RIVER BELOW FLAT CREEK, NEAR JACKSON, WY

LOCATION.--Lat 43°22'20", long 110°44'17", in NE¼SE¼ sec.3, T.39 N., R.116 W., Teton County, Hydrologic Unit 17040103, on left bank 20 ft upstream from county road bridge, about 1 mi downstream from Flat Creek, 4.8 mi upstream from Hoback River, 7.0 mi south of Jackson, and at mile 938.9.

DRAINAGE AREA.--2,627 mi².

PERIOD OF RECORD.--November 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,950 ft, from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. No gage-height record Dec. 20 to Jan 25, Aug. 14 to Sept. 30. Flow partly regulated by Jackson Lake. Some diversions from tributaries above station.

AVERAGE DISCHARGE.--8 years (water years 1977-84), 3,765 ft³/s, 2,728,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft³/s, June 29, 1982, gage height, 9.25 ft; minimum daily, 780 ft³/s, Dec. 31, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,300 ft³/s, June 1, gage height, 9.11 ft; minimum daily, 1,400 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2680	2640	2120	1630	1710	1540	1510	2720	18400	12000	5650	4300
2	2720	2580	2140	1590	1750	1540	1520	3030	16500	11200	5460	4280
3	2720	2580	2190	1600	1800	1540	1540	3240	15500	11400	5290	4240
4	2690	2590	2290	1610	1720	1500	1540	3590	14700	12400	5120	4220
5	2570	2550	2190	1580	1670	1490	1590	4070	12600	13100	5000	5400
6	2480	2660	2150	1680	1730	1480	1670	4140	11600	12900	4880	6350
7	2390	2750	2140	1780	1700	1460	1740	4020	10800	12600	4900	6330
8	2340	2890	2170	1760	1600	1480	1750	4080	10300	13100	4960	6280
9	2290	3160	2180	1740	1590	1480	1740	4140	9680	13600	4800	6200
10	2250	3210	2190	1700	1620	1480	1750	4370	9320	13600	4710	6080
11	2360	3150	2220	1620	1600	1500	1730	4590	9320	13900	4610	5620
12	2550	3150	2260	1570	1590	1540	1700	4730	9040	13600	4630	6080
13	2660	3150	2210	1520	1590	1550	1660	5360	8870	13300	4570	5380
14	2710	3110	2190	1460	1590	1560	1650	6720	7700	13300	4600	5780
15	2970	3000	2190	1440	1520	1590	1650	8340	7320	13000	4540	6400
16	3000	2930	2160	1530	1570	1620	1780	9910	7920	12800	4560	6410
17	2930	3000	2140	1480	1560	1600	1970	9260	8510	12600	4520	6420
18	2890	2910	2080	1400	1540	1570	2200	8530	9120	12400	4480	6420
19	2880	2980	2040	1470	1500	1560	2540	8760	11300	10800	4410	6450
20	2820	2990	2000	1420	1520	1550	2620	9880	11800	8230	4340	6600
21	2810	2980	1950	1460	1600	1560	2410	10500	10800	7060	4320	6880
22	2590	2860	1850	1520	1550	1570	2320	9720	10900	7080	4290	7180
23	2530	2750	1680	1600	1520	1570	2340	9250	11100	7640	4260	7380
24	2540	2450	1540	1500	1550	1560	2480	10600	10900	7700	4280	7440
25	2710	2330	1600	1600	1540	1560	2530	11400	11200	6880	4300	7410
26	2740	2310	1630	1680	1520	1560	2540	9710	11700	6410	4340	8860
27	2740	2230	1670	1750	1490	1540	2520	9100	11900	6280	4280	8780
28	2700	2190	1680	1720	1500	1510	2650	9010	11400	6300	4180	8640
29	2680	2190	1680	1670	1510	1500	2750	9600	11200	6080	4120	8490
30	2660	2130	1690	1640	---	1500	2730	11700	11200	5980	4080	7630
31	2660	---	1700	1660	---	1510	---	15400	---	5670	4200	---
TOTAL	82260	82400	61930	49380	46250	47570	61120	229470	332600	322910	142680	193930
MEAN	2654	2747	1998	1593	1595	1535	2037	7402	11090	10420	4603	6464
MAX	3000	3210	2290	1780	1800	1620	2750	15400	18400	13900	5650	8860
MIN	2250	2130	1540	1400	1490	1460	1510	2720	7320	5670	4080	4220
AC-FT	163200	163400	122800	97950	91740	94360	121200	455200	659700	640500	283000	384700

CAL YR 1983 TOTAL 1550770 MEAN 4249 MAX 18200 MIN 1540 AC-FT 3076000
WTR YR 1984 TOTAL 1652500 MEAN 4515 MAX 18400 MIN 1400 AC-FT 3278000

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY

LOCATION.--Lat 43°17'56", long 110°31'33", in NW¼SW¼ sec.34, T.39 N., R.114 W., Teton County, Hydrologic Unit 17040103, Teton National Forest, 1.4 mi northeast of U.S. Highway 187-189 on Granite Creek Road, and 11.3 mi east of Hoback Junction on U.S. Highway 187-189.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,390 ft, from topographic map.

REMARKS.--Records good except for winter months, which are fair. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft^3/s, May 29, 1983, gage height, 3.86 ft; maximum gage height, 4.1 ft, Feb. 25, 1982 (backwater from ice); minimum daily discharge, 2.5 ft^3/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 389 ft^3/s, May 15, gage height, 3.34 ft; minimum discharge, 5.1 ft^3/s, Mar. 5, gage height, 1.32 ft, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	15	12	10	8.3	12	40	258	95	28	17
2	16	16	15	12	9.9	8.4	13	40	208	89	27	17
3	18	16	15	12	9.8	8.4	14	40	191	87	26	17
4	17	16	15	12	9.3	8.3	15	40	184	83	28	17
5	16	17	14	12	9.1	8.1	15	40	171	80	27	16
6	16	17	15	12	9.3	8.4	16	40	148	73	25	19
7	16	19	17	12	9.5	8.5	17	38	149	68	24	15
8	15	18	19	12	9.3	8.7	17	42	136	63	23	14
9	16	18	19	11	9.1	8.7	17	48	124	59	22	14
10	19	18	17	12	8.7	8.8	17	51	118	53	21	13
11	21	18	15	13	8.8	8.9	17	60	117	50	20	14
12	18	17	14	12	8.7	8.9	20	90	115	52	20	15
13	18	17	15	12	8.7	9.0	19	127	115	48	20	13
14	23	16	15	11	8.9	8.9	22	175	132	46	20	12
15	21	17	14	10	8.8	8.9	24	228	166	44	19	12
16	19	17	15	9.4	8.6	8.9	34	250	189	41	19	12
17	19	18	14	8.4	8.9	9.2	45	205	207	39	19	12
18	18	17	13	7.7	8.7	9.1	59	198	185	37	19	12
19	18	16	14	8.3	8.2	9.0	68	207	181	37	19	12
20	17	18	14	8.0	7.8	9.6	62	224	199	36	19	11
21	16	18	13	8.5	7.9	10	59	218	194	37	19	15
22	16	16	12	9.0	8.1	9.7	62	189	177	42	18	13
23	17	15	11	8.8	8.2	10	65	181	152	40	18	15
24	18	16	10	9.2	8.2	10	60	268	143	37	18	15
25	16	17	9.8	9.5	8.2	11	57	220	144	34	18	14
26	16	16	10	10	8.0	10	52	197	141	33	18	14
27	16	16	11	9.9	7.8	12	50	190	125	33	18	14
28	16	16	11	10	7.9	13	46	195	113	32	18	13
29	15	14	10	9.9	8.1	11	46	214	107	31	18	13
30	15	13	10	9.9	---	12	42	261	103	30	17	13
31	16	---	11	9.9	---	12	---	307	---	28	17	---
TOTAL	534	499	422.8	323.4	252.5	295.7	1062	4623	4692	1557	642	423
MEAN	17.2	16.6	13.6	10.4	8.71	9.54	35.4	149	156	50.2	20.7	14.1
MAX	23	19	19	13	10	13	68	307	258	95	28	19
MIN	15	13	9.8	7.7	7.8	8.1	12	38	103	28	17	11
AC-FT	1060	990	839	641	501	587	2110	9170	9310	3090	1270	839

CAL YR 1983 TOTAL 15974.6 MEAN 43.8 MAX 656 MIN 4.8 AC-FT 31690
WTR YR 1984 TOTAL 15326.4 MEAN 41.9 MAX 307 MIN 7.7 AC-FT 30400

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1981 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: December 1981 to current year.

INSTRUMENTATION.--PS-69 automatic sediment sampler.

REMARKS.--Sediment record estimated Oct. 20 to Nov. 3, 1982, Apr. 25 to May 17, May 23 to Aug. 31, Sept. 15-30, 1983.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 3,150 mg/L, May 16, 1984; minimum daily 2 mg/L, Dec. 11, 1981.
SEDIMENT LOADS: Maximum daily, 2,130 tons, May 16, 1984; minimum daily, 0.02 tons, Dec. 11, 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 3,150 mg/L, May 16; minimum daily, 11 mg/L, July 15-17.
SEDIMENT LOADS: Maximum daily, 2,130 tons, May 16; minimum daily, 0.56 tons, Sept. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)
OCT												
12...	1236	18	418	8.4	2.5	2.9	11.2	103	20	26	230	35
NOV												
14...	1317	19	384	8.5	1.0	5.1	11.2	99	23	26	210	19
DEC												
15...	1326	14	411	8.5	.0	5.5	11.6	101	65	30	220	22
JAN												
26...	1628	11	438	8.4	.0	1.8	11.6	99	K2	K6	240	37
FEB												
14...	1213	9.1	448	7.8	.0	2.1	11.9	104	<1	310	240	44
MAR												
14...	1218	9.0	454	8.4	1.0	1.9	11.4	102	K2	K5	240	30
APR												
18...	1214	49	416	8.4	2.0	70	10.9	100	K16	25	210	4
MAY												
10...	1320	50	--	--	--	--	--	--	--	--	--	--
17...	1614	198	367	8.7	6.0	95	9.9	102	K18	25	190	3
22...	1420	166	374	--	7.5	--	--	--	--	--	--	--
30...	1855	253	344	--	6.0	--	--	--	--	--	--	--
JUN												
07...	1225	142	265	--	5.0	--	--	--	--	--	--	--
13...	0907	111	378	8.1	6.0	14	10.4	105	K14	K14	200	47
21...	1210	181	--	--	--	--	--	--	--	--	--	--
28...	1155	110	--	--	--	--	--	--	--	--	--	--
JUL												
06...	1000	74	--	--	--	--	--	--	--	--	--	--
11...	1327	51	394	--	13.0	--	--	--	--	--	--	--
18...	1221	41	310	8.2	7.0	1.4	9.9	103	K16	56	180	30
AUG												
15...	1040	18	367	8.5	8.5	3.7	9.5	102	35	120	210	25
SEP												
11...	1038	12	411	8.7	6.0	2.5	10.1	103	42	76	220	34

K-Results based on colony count outside the acceptable range (non-ideal colony count).

AVAILABLE

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT												
12...	69	14	4.0	.1	.70	196	35	1.0	<.10	4.8	239	250
NOV												
14...	63	13	3.7	.1	.80	192	28	.80	<.10	4.4	231	230
DEC												
15...	65	14	3.9	.1	.80	198	31	.90	.10	3.8	--	240
JAN												
26...	71	15	4.6	.1	.90	203	42	.90	.10	4.8	260	260
FEB												
14...	70	16	4.9	.1	.80	197	52	1.0	<.10	5.0	272	270
MAR												
14...	70	15	4.9	.1	.90	207	52	.80	.10	5.0	268	270
APR												
18...	63	13	4.6	.1	1.2	208	29	1.0	<.10	5.0	246	240
MAY												
10...	--	--	--	--	--	--	--	--	--	--	--	--
17...	58	12	2.8	.0	1.1	192	13	.80	<.10	4.7	--	210
22...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
13...	61	12	2.8	.0	.70	155	14	.50	<.10	4.4	220	190
21...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
06...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
18...	53	12	2.6	.0	.80	152	18	.60	.10	4.2	166	180
AUG												
15...	63	14	3.3	.1	.90	190	28	.80	<.10	4.5	--	230
SEP												
11...	64	15	3.6	.1	1.0	188	37	.60	<.10	4.5	--	240

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)
OCT											
12...	.33	12	<.10	<.10	.040	.050	.06	.76	.65	.70	.10
NOV											
14...	.31	12	<.10	<.10	.030	.030	.04	.67	.57	.60	.10
DEC											
15...	.32	9.0	<.10	<.10	<.010	.020	.03	--	.18	.20	--
JAN											
26...	.35	7.7	<.10	<.10	.050	.030	.04	.15	.17	.20	--
FEB											
14...	.37	6.7	<.10	<.10	.200	.120	.15	.00	.08	.20	--
MAR											
14...	.36	6.5	<.10	<.10	.030	.030	.04	.17	.17	.20	--
APR											
18...	.33	33	.20	.25	.080	.110	.14	.42	.19	.30	.20
MAY											
10...	--	--	--	--	--	--	--	--	--	--	--
17...	.28	111	.20	.21	.030	.090	.12	.47	.31	.40	.10
22...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
13...	.30	66	.10	.10	.030	.030	.04	.27	.17	.20	--
21...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JUL											
06...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
18...	.23	18	<.10	<.10	.060	.020	.03	.14	.18	.20	--
AUG											
15...	.31	11	<.10	<.10	.040	.010	.01	.76	.19	.20	--
SEP											
11...	.32	7.7	<.10	<.10	.020	.020	.03	.18	--	<.20	--

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
12...	.80	.010	.010	--	2.1	.30	<.01	--	37	1.8	--
NOV											
14...	.70	.040	<.010	1.4	--	--	--	660	56	2.9	--
DEC											
15...	.20	.020	<.010	1.0	--	--	--	--	32	1.2	--
JAN											
26...	.20	.010	<.010	--	1.8	.30	<.01	--	21	.62	--
FEB											
14...	.20	.010	.050	.90	--	--	--	--	17	.42	--
MAR											
14...	.20	<.010	<.010	.60	--	--	--	--	102	2.5	86
APR											
18...	.50	.280	.020	--	3.2	.90	<.01	--	290	38	93
MAY											
10...	--	--	--	--	--	--	--	--	136	18	84
17...	.50	.150	.010	6.4	--	--	--	--	422	226	71
22...	--	--	--	--	--	--	--	--	220	99	75
30...	--	--	--	--	--	--	--	--	1040	712	72
JUN											
07...	--	--	--	--	--	--	--	--	106	41	--
13...	.30	.040	.010	1.9	--	--	--	--	73	22	--
21...	--	--	--	--	--	--	--	--	81	40	--
28...	--	--	--	--	--	--	--	--	45	13	--
JUL											
06...	--	--	--	--	--	--	--	--	24	4.8	--
11...	--	--	--	--	--	--	--	--	9	1.2	--
18...	.20	.010	<.010	--	3.1	.30	<.01	--	8	.89	56
AUG											
15...	.80	.010	<.010	1.1	--	--	--	--	29	1.4	79
SEP											
11...	.20	.010	<.010	.70	--	--	--	--	16	.52	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
OCT										
12...	1236	1	0	1	200	.00	130	<.5	<1	<1
JAN										
26...	1628	1	--	<1	<100	--	130	<.5	<1	<1
APR										
18...	1214	<1	--	<1	200	.00	140	.5	1	<1
JUL										
18...	1221	<1	--	<1	200	--	100	1.0	<1	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT									
12...	<10	<1	<3	6	<10	10	--	290	10
JAN									
26...	<10	<1	<3	6	<10	<3	--	90	1
APR									
18...	<10	1	<3	8	<10	15	3500	3500	10
JUL									
18...	<10	<1	<3	10	<10	8	--	80	2

AVAILABLE

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)
OCT 12...	<10	11	20	20	4	.1	.0	.1	<10
JAN 26...	<10	14	20	20	2	.1	--	<.1	<10
APR 18...	<10	10	140	130	6	1.0	.3	.7	<10
JUL 18...	<10	7	<10	--	4	.4	--	.4	<10

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 12...	<1	<1	<1	<1	290	<6	80	50	31
JAN 26...	<1	<1	<1	<1	310	<6	20	0	12
APR 18...	<1	<1	<1	<1	310	<6	60	40	23
JUL 18...	<1	<1	<1	<1	180	<6	70	--	22

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	16			16			15		
2	16			16			15		
3	18			16			15		
4	17			16			15		
5	16			17			14		
6	16			17			15		
7	16			19			17		
8	15			18			19		
9	16			18			19		
10	19			18			17		
11	21			18			15		
12	18			17			14		
13	18			17			15		
14	23			16			15		
15	21			17			14		
16	19			17			15		
17	19			18			14		
18	18			17			13		
19	18			16			14		
20	17			18			14		
21	16			18			13		
22	16			16			12		
23	17			15			11		
24	18			16			10		
25	16			17			9.8		
26	16			16			10		
27	16			16			11		
28	16			16			11		
29	15			14			10		
30	15			13			10		
31	16			---			11		
TOTAL	534			499			422.8		
		JANUARY			FEBRUARY			MARCH	
1	12			10			8.3		
2	12			9.9			8.4		
3	12			9.8			8.4		
4	12			9.3			8.3		
5	12			9.1			8.1		
6	12			9.3			8.4		
7	12			9.5			8.5		
8	12			9.3			8.7		
9	11			9.1			8.7		
10	12			8.7			8.8		
11	13			8.8			8.9		
12	12			8.7			8.9		
13	12			8.7			9.0		
14	11			8.9			8.9		
15	10			8.8			8.9		
16	9.4			8.6			8.9		
17	8.4			8.9			9.2		
18	7.7			8.7			9.1		
19	8.3			8.2			9.0		
20	8.0			7.8			9.6		
21	8.5			7.9			10		
22	9.0			8.1			9.7		
23	8.8			8.2			10		
24	9.2			8.2			10		
25	9.5			8.2			11		
26	10			8.0			10		
27	9.9			7.8			12		
28	10			7.9			13		
29	9.9			8.1			11		
30	9.9			---			12		
31	9.9			---			12		
TOTAL	323.4			252.5			295.7		

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	12			40	82	8.9	258	505	352
2	13			40	83	9.0	208	206	116
3	14			40	81	8.7	191	126	65
4	15			40	66	7.1	184	132	66
5	15			40	66	7.1	171	102	47
6	16			40	50	5.4	148	75	30
7	17			38	45	4.6	149	85	34
8	17			42	52	5.9	136	118	43
9	17			48	105	14	124	73	24
10	17			51	125	17	118	75	24
11	17			60	122	20	117	212	67
12	20			90	283	69	115	99	31
13	19			127	664	228	115	70	22
14	22			175	1200	567	132	105	37
15	24			228	460	283	166	148	66
16	34			250	3150	2130	189	148	76
17	45			205	750	415	207	155	87
18	59			198	442	236	185	154	77
19	68			207	500	279	181	151	74
20	62			224	614	371	199	116	62
21	59			218	580	341	194	112	59
22	62			189	268	137	177	94	45
23	65			181	239	117	152	74	30
24	60			268	225	163	143	76	29
25	57			220	307	182	144	93	36
26	52			197	185	98	141	85	32
27	50			190	140	72	125	63	21
28	46			195	160	84	113	50	15
29	46			214	279	161	107	53	15
30	42			261	445	314	103	49	14
31	---			307	660	547	---	---	---
TOTAL	1062			4623	---	6901.7	4692	---	1696
		JULY			AUGUST			SEPTEMBER	
1	95	42	11	28	60	4.5	17	20	.92
2	89	43	10	27	52	3.8	17	20	.92
3	87	38	8.9	26	48	3.4	17	16	.73
4	83	30	6.7	28	65	4.9	17	15	.69
5	80	26	5.6	27	318	23	16	13	.56
6	73	19	3.7	25	102	6.9	19	19	.97
7	68	17	3.1	24	58	3.8	15	75	3.0
8	63	14	2.4	23	46	2.9	14	24	.91
9	59	15	2.4	22	44	2.6	14	23	.87
10	53	14	2.0	21	31	1.8	13	28	.98
11	50	37	5.0	20	30	1.6	14	126	4.8
12	52	12	1.7	20	24	1.3	15	49	2.0
13	48	14	1.8	20	30	1.6	13	36	1.3
14	46	22	2.7	20	26	1.4	12	35	1.1
15	44	11	1.3	19	23	1.2	12	34	1.1
16	41	11	1.2	19	39	2.0	12	34	1.1
17	39	11	1.2	19	45	2.3	12	29	.94
18	37	30	3.0	19	44	2.3	12	25	.81
19	37	40	4.0	19	27	1.4	12	28	.91
20	36	37	3.6	19	40	2.1	11	43	1.3
21	37	35	3.5	19	32	1.6	15	44	1.8
22	42	54	6.1	18	34	1.7	13	37	1.3
23	40	94	10	18	29	1.4	15	43	1.7
24	37	59	5.9	18	43	2.1	15	37	1.5
25	34	45	4.1	18	39	1.9	14	63	2.4
26	33	43	3.8	18	35	1.7	14	39	1.5
27	33	40	3.6	18	28	1.4	14	20	.76
28	32	263	23	18	26	1.3	13	24	.84
29	31	351	29	18	18	.87	13	29	1.0
30	30	138	11	17	21	.96	13	24	.84
31	28	73	5.5	17	22	1.0	---	---	---
TOTAL	1557	---	186.8	642	---	90.73	423	---	39.55
YEAR	15326.4		8914.78						

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PERIPHYTON

TAXA	PERCENT WITHIN DIVISION			
	DEC 15	MAR 14	JUNE 13	SEPT 11
BACILLARIOPHYTA (DIATOMS) *	35	71	72	10
ACHNANTHES AFFINIS	--	--	11	12
ACHNANTHES LANCEOLATA F. DUBIA	--	--	--	<1
ACHNANTHES LANCEOLATA VAR. DUBIA	--	5	<1	--
ACHNANTHES LINEARIS	<1	--	1	1
ACHNANTHES LINEARIS F. CURTA	--	--	1	1
ACHNANTHES MINUTISSIMA	3	5	2	1
ACHNANTHES SP.	--	--	1	--
AMPHIPLEURA PELLUCIDA	1	--	--	--
AMPHORA PERPUSILLA	1	--	9	3
CALONEIS SP.	--	--	<1	--
COCCONEIS PEDICULUS	<1	--	--	11
COCCONEIS PLACENTULA	<1	5	<1	<1
CYMBELLA AFFINIS	<1	--	1	2
CYMBELLA LUNATA	--	--	--	<1
CYMBELLA MICROCEPHALA VAR. CRASSA	--	--	--	<1
CYMBELLA MINUTA	--	11	--	<1
CYMBELLA MINUTA F. LATENS	--	--	--	<1
CYMBELLA MINUTA VAR. SILESIACA	3	--	--	4
CYMBELLA SINUATA	--	--	--	<1
EPITHEMIA ADNATA	--	--	<1	<1
EPITHEMIA SOREX	2	--	<1	<1
GOMPHONEIS HERCULEANA	<1	--	--	--
GOMPHONEMA INTRICATUM	--	--	--	<1
GOMPHONEMA OLIVACEUM	5	--	1	6
GOMPHONEMA SUBCLAVATUM	P	5	--	--
HANNAEA ARCUS	<1	--	<1	--
MERIDION CIRCULARE	--	--	<1	--
NAVICULA BACILLUM	--	--	<1	--
NAVICULA CRYPTOCEPHALA	--	5	<1	--
NAVICULA CRYPTOCEPHALA VAR. VENETA	10	--	2	2
NAVICULA HEUFLERI	1	--	2	2
NAVICULA LANCEOLATA	--	--	<1	--
NAVICULA MENISCULUS VAR. UPSALIENSIS	--	--	1	--
NAVICULA MINIMA	--	--	--	<1
NAVICULA MINUSCULA	<1	--	1	<1
NAVICULA NOTHA	6	--	6	4
NAVICULA PELLICULOSA	<1	--	--	--
NAVICULA RHYNCHOCEPHALA	--	--	--	<1
NAVICULA SP.	<1	--	<1	--
NAVICULA TRIPUNCTATA VAR. SCHIZONEMOIDES	<1	--	--	--
NAVICULA VIRIDULA VAR. AVENACEA	14	41	14	34
NAVICULA VIRIDULA VAR. ROSTELLATA	--	--	--	<1
NITZSCHIA AMPHIBIA	P	--	--	--
NITZSCHIA DISSIPATA	37	16	37	8
NITZSCHIA FONTICOLA	--	--	<1	--
NITZSCHIA FRUSTULUM	P	--	2	--
NITZSCHIA HUNGARICA	--	--	--	<1
NITZSCHIA LATENS	5	--	1	--
NITZSCHIA LINEARIS	1	--	--	1
NITZSCHIA MICROCEPHALA	<1	--	--	--
NITZSCHIA PALEA	4	--	4	--
NITZSCHIA PALEACEA	1	--	1	--
NITZSCHIA THERMALIS	<1	--	--	--
NITZSCHIA SP.	P	--	--	--
NITZSCHIA SP. 1	--	--	--	1
NITZSCHIA SP. 2	--	--	--	<1
RHOPALODIA GIBBA	<1	--	--	--
SURIRELLA ANGUSTATA	--	--	--	<1
SURIRELLA OVATA	5	5	--	1
SYNEDRA ULNA	2	--	--	<1
SYNEDRA ULNA VAR. OXYRHYNCHUS	--	--	<1	<1
CHLOROPHYTA (GREEN ALGAE) *	<1	--	--	85
CLADOPHORA GLOMERATA	--	--	--	100
CLOSTERIUM SP.	1	--	--	--
ULOTHRIX ZONATA	99	--	--	--

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PERIPHYTON

TAXA		PERCENT WITHIN DIVISION			
		DEC 15	MAR 14	JUNE 13	SEPT 11
CYANOPHYTA (BLUE-GREEN ALGAE)	*	5	29	28	5
ANABAENA SP.		1	100	--	<1
LYNGBYA SP.		3	--	36	--
LYNGBYA NANA		90	--	64	60
NOSTOC SP.		6	--	--	--
OSCILLATORIA SP.		<1	--	P	<1
PHORMIDIUM SP.		--	--	--	40
RHODOPHYTA (RED ALGAE)	*	<1	--	--	--
LEMANEA FUCINA (CHANTRANSIA PHASE)		100	--	--	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)	*	60	--	--	--
HYDRURUS FOETIDUS		100	--	--	--
NUMBER OF TAXA		43	10	35	41

P = TAXA OBSERVED AFTER COUNTS COMPLETED
* = PERCENT OF TOTAL ALGAE

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BENTHIC INVERTEBRATES

(FUNCTIONAL GROUP: CG, COLLECTORS-GATHERERS; CF, COLLECTORS-FILTERS; S, SCRAPERS; SH, SHREDDERS: P, PREDATORS)

TAXA	FUNCTIONAL GROUP	NOV 14	MAR 14	MAY 17	JUN 13	JUL 13	SEP 6
INSECTA							
COLEOPTERA (BEETLES)							
HETERLIMNIUS COPULENTUS	CG	2	--	--	--	3	2
OPTIOSERVUS QUADRIMACULATUS	CG	--	--	1	--	--	--
OREDYTES SP.	P	1	--	--	--	--	--
DIPTERA (TRUE-FLIES)							
ANTOCHA SP.	CG	14	3	2	--	2	4
CHELIFERA SP.	P	--	--	--	--	2	3
CHIRONOMIDAE PUPA	--	--	--	--	--	11	4
CRICOTOPUS SP.	SH	3	195	11	1	5	4
DIAMESA SP.		--	1	1	--	155	1
DICRANOTA SP.	P	3	--	--	--	--	1
HEMERODROMIA SP.	P	--	--	--	--	--	1
HESPEROCONOPA SP.	CG	2	--	--	--	2	1
HEXATOMA SP.	P	1	--	--	--	--	--
MICROSPECTRA SP.	CG	--	--	--	--	--	2
ORTHOCLADIUS SP.	CG	1	91	3	--	27	17
PAGASTIA SP.	CG	--	--	--	--	20	12
PALPOMYIA COMPLEX	P	--	--	--	--	2	--
PARACLADOPELMA SP.	P	--	--	--	--	2	--
PARAMETRIOCNEMUS SP.	CG	2	12	6	--	--	33
PERICOMA SP.	CG	2	2	--	--	--	--
PROSIMULIUM SP.	CF	--	--	--	--	1	--
THIENEMANNIELLA SP.	CG	--	--	--	--	26	--
THIENEMANNIELLA SP. GROUP	P	--	--	--	--	5	--
EPHEMEROPTERA (MAYFLIES)							
AMELETUS COOKI	CG	1	--	--	--	--	--
AMELETUS VELOX	CG	--	--	--	2	--	3
BAETIS BICAUDATUS	CG	19	3	8	4	11	37
BAETIS TRICAUDATUS	CG	39	11	8	3	49	45
CAUDATELLA HYSTRIX		--	--	--	--	--	1
CINYGMULA SP.	S	7	8	2	--	--	2
DRUNELLA COLORADENSIS	CG	--	--	--	--	5	--
DRUNELLA DODDSI	CG	11	13	5	2	4	9
DRUNELLA GRANDIS	CG	3	2	--	--	--	1
DRUNELLA GRANDIS GRANDIS	CG	--	--	--	1	1	--
EPEORUS ALBERTAE	S	--	--	--	--	--	1
EPEORUS DECEPTIVUS	S	1	--	--	--	--	--
EPEORUS LONGIMANUS	S	--	9	6	--	34	4
EPEORUS SP.	S	--	--	--	3	--	--
EPHEMERELLA INERMIS	CG	--	--	--	--	1	--
EPHEMERELLA INFREQUENS	CG	23	2	1	--	3	6
RHITHROGENA HAGENI	S	40	24	3	2	4	49
RHITHROGENA ROBUSTA	S	3	5	2	--	--	--
SERRATELLA MICHENERI	CS	--	--	--	--	23	--
HYDRACARINA (WATER-MITES)							
LEBERTIA SP	P	--	--	--	--	--	1
MIDEOPSIS SP.	P	--	--	--	--	--	1
PROTOZIA SP.	P	--	--	--	--	1	--
PLECOPTERA (STONEFLIES)							
CAPNIIDAE	SH	37	3	--	--	--	13
CHLOROPERLIDAE	P	27	7	1	6	19	49
HESPEROPERLA PACIFICA	P	5	1	--	--	--	3
ISOPERLA FULVA	P	14	9	--	--	--	1
ISOPERLA SP.	P	--	--	1	--	--	--
KOGOTUS SP.	P	--	--	--	--	5	--
PARALEUCTRA SP.	SH	--	4	--	--	--	--
PERLODIDAE	P	--	--	--	--	1	10
PROSTOIA BESAMETSA	SH	142	138	--	--	--	2
SKWALA SP.	P	4	--	--	--	--	--
TAENIONEMA NIGRIPENNE	SH	--	19	--	--	--	--
TAENIONEMA SP.	SH	24	--	--	--	--	19
ZAPADA CINCTIPES	SH	71	3	--	--	--	27
ZAPADA OREGONENSIS GROUP		1	--	--	--	--	3

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BENTHIC INVERTEBRATES

(FUNCTIONAL GROUP: CG, COLLECTORS-GATHERERS; CF, COLLECTORS-FILTERS; S, SCRAPERS; SH, SHREDDERS: P, PREDATORS)

TAXA	FUNCTIONAL GROUP	NOV 14	MAR 14	MAY 17	JUN 13	JUL 13	SEP 6
TRICHOPTERA (CADDISFLIES)							
ARCTOPSYCHE GRANDIS	CF	15	17	1	--	5	53
BRACHYCENTRUS AMERICANUS	CF	3	--	--	--	5	24
DICOSMOECUS ATRIPES	S	2	1	--	--	3	--
GLOSSOSOMA SP.	S	2	1	1	--	--	--
MICRASEMA SP.	SH	2	--	--	--	--	--
OLIGOPHLEBODES SP.	S	--	--	1	--	--	--
RHYACOPHILA ACROPEDES	P	17	20	3	2	10	3
RHYACOPHILA ANGELITA	P	2	--	--	1	9	3
RHYACOPHILA COLORADENSIS	P	--	--	1	--	--	--
OLIGOCHAETA (WORMS)							
LIMNODRILUS SP.	CG	2	6	--	--	1	--
TURBELLARIA (FLATWORMS)	P						
POLYCELIS CORONATA	P	--	--	3	--	1	--
NUMBER OF INDIVIDUALS		548	610	72	27	459	455
NUMBER OF TAXA		37	28	23	11	34	38
DIVERSITY INDEX		3.91	3.20	4.03	3.23	3.65	4.21

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°11'47", long 110°53'18", Lincoln County, Hydrologic Unit 17040103, on right bank 0.3 mi downstream from Wolf Creek, 6.4 mi upstream from Greys River, 7.4 mi east of Alpine, 16.1 mi upstream from Palisades Dam, and at mile 917.5.

DRAINAGE AREA.--3,465 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1937 to March 1939 (published as "above Greys River, near Alpine"), July 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,683.90 ft, National Geodetic Vertical Datum of 1929. Mar. 16, 1937, to Mar. 31, 1939, at site 6.0 mi downstream at different datum.

REMARKS.--Records excellent except those for winter period, which are good. Flow partly regulated by Jackson Lake. Some diversions from tributaries above station.

AVERAGE DISCHARGE.--32 years (water years 1938, 1954-84), 4,638 ft³/s, 3,336,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s, June 19, 1974, gage height, 11.96 ft; minimum, 740 ft³/s, Nov. 16, 1955, gage height, 2.19 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,600 ft³/s, June 1, gage height, 10.56 ft; maximum gage height, 11.99 ft, Dec. 25 (backwater from ice); minimum discharge, 1,610 ft³/s, Mar. 5, gage height, 2.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3680	3400	2750	2010	2150	1900	1960	3950	22300	15000	7440	5500
2	3670	3320	2750	1980	2170	1920	1960	4260	20100	14100	7210	5470
3	3700	3360	2790	1980	2240	1910	1960	4610	19200	13600	6980	5410
4	3530	3320	2900	1990	2250	1860	1990	4920	18300	14500	6730	5340
5	3340	3250	2780	1960	2120	1810	2060	5570	16300	15100	6630	6990
6	3210	3450	2760	2060	2130	1870	2180	5590	14700	15100	6440	7770
7	3120	3510	2760	2210	2190	1860	2270	5370	13900	14600	6500	7770
8	3060	3770	2750	2190	2080	1870	2290	5570	13200	14900	6490	7710
9	3050	3870	2740	2170	2000	1900	2310	6080	12400	15400	6270	7650
10	3280	4040	2790	2100	2080	1910	2300	6870	11700	15300	6130	7530
11	3420	4000	2820	2030	2070	1930	2260	7090	11900	15300	6000	6900
12	3500	4030	2830	1970	2030	1960	2180	7880	11600	15100	5940	7550
13	3530	4000	2760	1910	2010	1920	2150	9090	11300	14700	5860	6270
14	3670	3950	2740	1870	1980	1960	2140	11000	10800	14600	5890	6450
15	3920	3780	2750	1810	1860	1980	2220	13300	10400	14300	5750	7720
16	3930	3690	2720	1900	1910	2010	2520	15200	11400	13900	5820	7770
17	3800	3730	2670	1810	1920	1960	3030	13200	13200	13800	5900	7870
18	3760	3790	2560	1720	1880	1920	3680	11600	12800	13500	5710	7780
19	3720	3740	2580	1800	1800	1880	4390	12200	14100	12100	5600	7780
20	3600	3750	2560	1780	1840	1920	4310	13900	15200	9830	5590	7820
21	3580	3740	2510	1820	1950	1970	3980	14800	14000	8560	5580	8120
22	3380	3590	2480	1890	1980	1940	3940	13300	13800	8880	5500	8740
23	3250	3380	2220	1980	1860	1920	4260	12700	13900	9570	5500	8990
24	3360	3240	2000	1900	1910	1950	4240	15100	13800	9490	5560	9190
25	3440	2940	2030	1990	1900	1930	4240	15500	14100	8610	5510	9080
26	3460	2900	2100	2100	1860	1960	3970	13300	14700	8030	5600	8890
27	3450	2800	2080	2230	1820	1900	3790	12400	15000	7920	5520	8760
28	3410	2770	2090	2150	1860	1870	3820	12200	14400	7940	5450	8620
29	3400	2830	2090	2110	1860	1910	3960	12700	14100	7870	5320	8450
30	3370	2750	2090	2040	---	1910	3900	15600	14200	7790	5240	7960
31	3390	---	2100	2070	---	1950	---	19500	---	7340	5400	---
TOTAL	107980	104690	78550	61530	57710	59460	90260	324350	426800	376730	185060	227850
MEAN	3483	3490	2534	1985	1990	1918	3009	10460	14230	12150	5970	7595
MAX	3930	4040	2900	2230	2250	2010	4390	19500	22300	15400	7440	9190
MIN	3050	2750	2000	1720	1800	1810	1960	3950	10400	7340	5240	5340
AC-FT	214200	207700	155800	122000	114500	117900	179000	643300	846600	747200	367100	451900

CAL YR 1983 TOTAL 1971440 MEAN 5401 MAX 23100 MIN 1760 AC-FT 3910000
WTR YR 1984 TOTAL 2100970 MEAN 5740 MAX 22300 MIN 1720 AC-FT 4167000

[illegible] AVAILABLE

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge at Astoria Springs, 3.0 mi downstream from Hoback River, 13 mi upstream from discharge station, and 15 mi northeast of Alpine.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 25...	1255	3500	335	7.5	160	45	12	6.5	.2	.80
JAN 16...	1515	2100	350	.0	160	46	11	10	.4	2.1
APR 10...	1500	2290	372	5.5	180	50	13	7.6	.3	1.2
JUN 07...	1900	13300	265	8.0	120	35	8.0	5.0	.2	.40

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 25...	120	53	4.0	.40	10	200	.28	1920	.500	.000
JAN 16...	120	51	5.2	.40	13	210	.29	1190	.000	.000
APR 10...	130	58	4.2	.70	10	220	.30	1380	.500	.030
JUN 07...	110	23	2.2	.30	9.1	150	.20	5350	.200	.000

13023000 GREYS RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°08'35", long 110°58'34", in SW¼SE¼ sec.34, T.37 N., R.118 W., (unsurveyed), Lincoln County, Hydrologic Unit 17040103, on right bank at Bridge Campground, 3.0 mi upstream from maximum flowline of Palisades Reservoir, and 3.6 mi southeast of Alpine.

DRAINAGE AREA.--448 mi^2. Mean altitude, 8,080 ft.

PERIOD OF RECORD.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to current year. Published as Greys River near Alpine, ID, 1917-18 and as Greys River near Alpine, WY, 1937-39.

REVISED RECORDS.--WRD ID 1967: 1966.

GAGE.--Water-stage recorder. Altitude of gage is 5,720 ft, from topographic map. July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, nonrecording gage and Mar. 17, 1937, to Mar. 31, 1939, water-stage recorder, at site 1.8 mi downstream, and October 1953 to Sept. 22, 1965, water-stage recorder at site 1 mi downstream at different datums.

REMARKS.--Records good except those for winter period, which are fair. Less than 500 acres irrigated by diversions from Greys River and tributaries above station.

AVERAGE DISCHARGE.--32 years (water years 1938, 1954-84), 664 ft^3/s, 20.13 in/yr, 481,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,230 ft^3/s, June 19, 1971, gage height, 6.33 ft; maximum gage height observed, 19.1 ft, former site and datum, about Dec. 18, 1965 (ice jam); minimum daily discharge, 92 ft^3/s, Jan. 2, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	0100	4,020	5.47	May 31	1815	*4,550	*5.66
May 24	1145	3,840	5.21	June 17	0345	2,910	4.57

Maximum gage height, 10.93 ft, Jan. 20, backwater from ice; minimum daily discharge, 190 ft^3/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	464	425	402	340	310	303	316	688	3870	2150	846	531
2	474	428	425	350	290	303	315	695	3220	1940	832	531
3	504	448	425	355	310	303	310	721	3070	1880	790	520
4	483	449	425	350	300	265	322	725	2770	1850	762	515
5	463	472	405	355	310	245	361	782	2770	1790	750	509
6	453	511	392	365	300	275	400	736	2530	1720	730	509
7	441	510	396	355	320	299	420	707	2560	1670	711	531
8	436	531	396	340	300	271	425	758	2440	1690	697	520
9	430	472	396	325	290	267	425	1020	2200	1620	685	504
10	511	455	396	320	310	267	425	1310	2050	1520	674	488
11	507	477	396	340	300	287	430	1430	2030	1430	667	504
12	484	495	402	325	310	287	408	1750	1850	1370	662	558
13	470	494	401	310	320	287	405	2270	1830	1320	659	520
14	470	490	401	305	310	287	396	2770	2100	1260	654	504
15	475	468	401	295	300	279	471	3390	2390	1220	641	498
16	471	438	398	285	310	282	635	3600	2550	1170	643	488
17	463	428	361	235	305	278	867	2690	2750	1130	655	482
18	455	447	330	200	295	279	1120	2470	2660	1100	624	477
19	448	467	320	190	265	267	1200	2690	2490	1090	613	471
20	435	465	315	200	245	274	1080	3160	2560	1080	630	477
21	435	460	310	210	260	275	927	3270	2600	1060	608	580
22	435	444	305	220	255	275	919	2660	2510	1100	591	547
23	436	432	305	250	270	273	996	2620	2400	1070	591	585
24	466	434	300	280	280	287	966	3440	2320	1010	602	613
25	447	436	311	320	290	291	911	3010	2350	964	580	558
26	435	440	321	290	280	293	831	2620	2380	954	591	542
27	431	414	330	300	255	274	764	2540	2390	911	563	531
28	423	429	340	320	270	270	731	2490	2350	911	563	525
29	419	429	345	310	285	289	729	2720	2270	889	547	515
30	415	352	360	295	---	287	695	3200	2320	871	536	493
31	416	---	350	305	---	305	---	3910	---	825	536	---
TOTAL	14095	13640	11360	9240	8445	8724	19200	66842	74580	40565	20233	15626
MEAN	455	455	366	298	291	281	640	2156	2486	1309	653	521
MAX	511	531	425	365	320	305	1200	3910	3870	2150	846	613
MIN	415	352	300	190	245	245	310	688	1830	825	536	471
AC-FT	27960	27050	22530	18330	16750	17300	38080	132600	147900	80460	40130	30990

CAL YR 1983 TOTAL 314219 MEAN 861 MAX 4660 MIN 235 AC-FT 623300
WTR YR 1984 TOTAL 302550 MEAN 827 MAX 3910 MIN 190 AC-FT 600100

13023900 SALT RIVER NEAR SMOOT, WY

LOCATION.--Lat 42°32'35", long 110°53'37", in SW¼NW¼ sec.33, T.30 N., R.118 W., Lincoln County, Hydrologic Unit 17040105, 35 ft upstream from North Fork, 50 ft upstream from culvert on U.S. Highway 89, 1.6 mi upstream from Cedar Creek, and 5.7 mi south of Smoot.

PERIOD OF RECORD.--August 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 to SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
25...	0930	19	383	3.0	200	58	13	3.5	.1	.40
DEC										
07...	0830	E15	381	.0	190	56	13	4.3	.1	.60
JAN										
16...	1155	E12	403	.0	210	64	13	4.2	.1	.80
FEB										
28...	1545	E10	385	.5	200	59	13	6.2	.2	.70
APR										
10...	0745	11	386	1.0	200	58	13	4.6	.1	.00
JUN										
08...	1045	290	314	4.0	170	52	9.5	.00	.0	.00
25...	1900	E290	294	13.5	150	47	8.9	.00	.0	.00
JUL										
11...	1800	94	299	15.0	160	47	11	3.9	.1	.50
27...	1050	57	340	11.5	130	31	12	5.7	.2	.80
SEP										
10...	1800	E15	360	13.0	190	56	13	4.5	.1	.00

E-Estimate.

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
25...	170	39	1.8	.20	5.9	220	.30	11	.000	.000
DEC										
07...	140	41	13	.10	6.2	220	.30	--	.100	.120
JAN										
16...	180	36	1.8	.20	6.6	230	.32	--	.000	.000
FEB										
28...	170	50	1.2	.40	6.0	240	.32	--	.000	.030
APR										
10...	170	38	2.8	.30	6.2	220	.31	6.7	.000	.030
JUN										
08...	160	16	.50	.00	4.9	180	.24	140	.300	.010
25...	140	8.6	.60	.10	4.0	150	.21	--	.200	.010
JUL										
11...	140	21	.00	.00	6.1	170	.24	44	.600	.000
27...	150	29	1.0	.20	5.5	180	.24	27	.100	.040
SEP										
10...	170	40	2.4	.00	11	230	.31	--	.000	.010

13025000 SWIFT CREEK NEAR AFTON, WY

LOCATION.--Lat 42°43'30", long 110°54'00", in SE¼ sec.29, T.32 N., R. 118 W., Lincoln County, Hydrologic Unit 17040105, Bridger National Forest, 1.0 mi upstream from mouth of canyon, 1.5 mi east of Afton, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--27.4 mi².

PERIOD OF RECORD.--August 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
25...	1020	69	360	7.5	190	50	16	.00	.0	.00
DEC										
07...	0940	55	370	.0	190	49	16	1.9	.0	.80
JAN										
16...	1240	E50	392	.0	210	57	17	.00	.0	.00
FEB										
29...	0810	E47	402	3.5	220	57	18	2.3	.0	.70
APR										
10...	0950	51	415	4.5	220	57	19	2.3	.0	.00
JUN										
08...	0930	277	314	4.0	170	46	13	.00	.0	.00
26...	0820	129	237	4.0	130	35	9.2	.00	.0	.00
JUL										
11...	1830	327	240	9.0	130	34	10	3.9	.2	.50
27...	1200	201	287	9.5	140	36	12	3.8	.1	.50
SEP										
10...	1830	129	339	9.0	180	49	15	1.9	.0	.00

E-Estimate.

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
25...	120	63	1.6	.40	4.6	210	.28	39	.000	.000
DEC										
07...	120	69	2.2	.20	4.8	220	.29	32	.100	.010
JAN										
16...	130	77	1.2	.40	4.2	230	.32	31	.100	.000
FEB										
29...	110	110	.60	.40	4.6	260	.35	33	.000	.010
APR										
10...	130	83	1.5	.60	5.0	250	.34	34	.000	--
JUN										
08...	130	32	1.4	.10	3.7	170	.24	130	.200	.010
26...	110	16	.60	.20	2.6	130	.18	45	.200	.010
JUL										
11...	110	22	.00	.00	.3	140	.19	121	.100	.000
27...	110	33	.60	.30	3.2	160	.21	84	.000	.040
SEP										
10...	120	62	1.4	.20	6.3	210	.28	72	.000	.000

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY

LOCATION.--Lat 43°04'47", long 111°02'12", in SW¼NE¼ sec.28, T.36 N., R.119 W., Lincoln County, Hydrologic Unit 17040105, on right bank 3.4 mi northwest of Etna and 8.0 mi upstream from maximum flowline of Palisades Reservoir.

DRAINAGE AREA.--829 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,675.78 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Diversions above station for power developments, industry, municipal supply, and irrigation of about 60,500 acres, of which about 1,000 acres are below station (1966 determination). For details on adjudication of diversions, see Remarks for this station in WSP 1347.

AVERAGE DISCHARGE.--31 years, 804 ft^3/s, 582,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,910 ft^3/s, May 30, 1983, gage height, 5.96 ft; minimum, 160 ft^3/s, Jan. 7, 8, 1971, gage height, 1.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,750 ft^3/s, May 16, gage height, 5.87 ft; minimum, 383 ft^3/s, Jan. 21, 22, gage height, 1.96 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	933	862	731	662	570	577	633	1420	4320	2210	1210	930
2	959	854	739	655	570	572	645	1490	4140	2100	1210	916
3	1000	846	739	655	577	570	659	1630	4000	1930	1180	903
4	937	821	755	655	570	569	677	1690	3820	1880	1160	888
5	907	829	731	655	570	561	699	1790	3790	1850	1120	880
6	891	913	731	662	563	563	737	1710	3680	1820	1090	891
7	872	905	739	662	570	563	796	1610	3650	1720	1050	906
8	870	981	731	662	570	563	838	1630	3550	1730	1020	902
9	963	871	747	662	563	563	868	1850	3350	1720	955	895
10	906	854	771	655	570	563	879	2100	3080	1670	936	875
11	900	862	755	655	570	577	879	2180	2980	1570	926	883
12	890	879	780	662	577	586	884	2300	2830	1490	931	943
13	880	871	763	655	577	591	867	2650	2650	1480	928	929
14	885	854	731	647	577	596	864	3270	2520	1430	899	900
15	890	837	747	640	577	605	890	4130	2570	1380	880	888
16	895	829	747	626	577	612	1010	4630	2680	1330	894	871
17	900	871	747	530	577	612	1300	4400	2790	1300	957	863
18	895	913	731	440	577	616	1700	4000	2810	1220	931	869
19	888	854	723	402	573	612	2090	3810	2830	1190	912	859
20	888	829	723	383	564	612	2040	4020	2730	1170	935	856
21	879	829	715	370	562	612	1810	4220	2660	1230	903	961
22	854	804	685	370	577	612	1800	4030	2630	1340	883	950
23	854	780	655	376	577	612	1820	3910	2500	1550	884	985
24	905	804	626	383	584	612	1890	4250	2380	1400	893	1180
25	879	821	626	396	584	612	1810	4350	2330	1250	891	1060
26	862	780	640	455	577	612	1680	4100	2310	1250	936	991
27	837	739	647	521	573	619	1550	3920	2290	1190	933	956
28	804	780	640	563	569	616	1480	3730	2240	1190	930	937
29	788	788	647	570	572	619	1480	3690	2190	1240	905	919
30	796	693	662	570	---	619	1440	3760	2170	1340	906	906
31	837	---	662	570	---	625	---	4110	---	1240	925	---
TOTAL	27444	25153	22066	17369	16614	18453	36715	96380	88470	46410	30113	27692
MEAN	885	838	712	560	573	595	1224	3109	2949	1497	971	923
MAX	1000	981	780	662	584	625	2090	4630	4320	2210	1210	1180
MIN	788	693	626	370	562	561	633	1420	2170	1170	880	856
AC-FT	54440	49890	43770	34450	32950	36600	72820	191200	175500	92050	59730	54930

CAL YR 1983 TOTAL 446057 MEAN 1222 MAX 4900 MIN 465 AC-FT 884800
WTR YR 1984 TOTAL 452879 MEAN 1237 MAX 4630 MIN 370 AC-FT 898300

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1977 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT										
25...	1200	906	485	6.0	230	62	19	15	.4	.60
DEC										
07...	1100	812	480	1.0	220	58	19	15	.5	.80
JAN										
16...	1350	598	503	.0	240	64	20	15	.4	1.3
FEB										
29...	0930	E550	491	1.0	240	63	20	14	.4	1.1
APR										
10...	1415	897	526	5.0	240	63	19	19	.6	1.4
JUN										
08...	0730	3550	401	8.0	190	56	13	8.0	.3	.40
26...	1230	1380	393	14.0	200	56	14	7.0	.2	.00
JUL										
11...	2000	1530	431	17.0	210	57	17	12	.4	.70
27...	1300	1180	476	15.0	170	36	19	12	.4	1.0
SEP										
10...	1945	872	467	14.0	240	64	20	9.6	.3	.00

E-Estimate.

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT										
25...	210	35	17	.30	6.0	280	.38	687	.70	.000
DEC										
07...	190	36	18	.10	6.6	270	.36	586	.90	.050
JAN										
16...	200	36	17	.20	6.8	280	.38	452	1.0	.000
FEB										
29...	200	52	16	.20	7.0	290	.40	--	1.1	.010
APR										
10...	210	33	25	.20	7.2	290	.40	711	.80	.040
JUN										
08...	180	20	9.7	.20	4.0	220	.30	2100	1.6	.010
26...	180	21	8.3	.10	5.0	220	.30	817	.50	.010
JUL										
11...	190	28	11	.00	6.3	250	.33	1020	.90	.000
27...	200	28	11	.20	6.8	230	.32	745	1.1	.820
SEP										
10...	200	32	11	.00	8.2	260	.36	623	3.2	.000

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)
JUN							
26...	1230	<.01	<.01	<.01	<.01	<.010	.010
JUL							
11...	2000	<.01	<.01	<.01	<.01	<.010	<.010
AUG							
02...	1800	<.01	<.01	<.01	<.01	<.010	<.010
SEP							
10...	1945	<.01	<.01	<.01	<.01	<.010	<.010

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Yellowstone River basin					
06218700	Wagon Gulch near Dubois, WY (station discontinued)	Lat 43°34'42", long 109°44'13", in NE¼NE¼ sec.30, T.42 N., R.107 W., Fremont County, 600 ft upstream from U.S. Highways 26 and 287 and 6.2 miles northwest of Dubois. Prior to Oct. 1, 1970, at site 600 ft downstream at different datum.	4.89	1961-84	4-20-84	14.48	16
06229900	Trout Creek near Fort Washakie, WY (station discontinued)	Lat 42°57'04", long 108°56'54", in NW¼NW¼ sec.25, T.1 S., R.2 W., Fremont County, Wind River Indian Reservation, 100 ft upstream from Blue Trail and 5.0 miles southwest of Fort Washakie. Prior to Oct. 1, 1968, at site 100 ft downstream at same datum.	16.1	1961-68, 1970-84	6-21-84	5.27	12
06233360	Monument Draw at lower station, near Hudson, WY (station discontinued)	Lat 42°49'15", long 108°34'59", in SW¼NW¼ sec.21, T.33 N., R.98 W., Fremont County, on left bank 225 ft upstream from dirt road crossing and 5.8 miles south of Hudson.	8.38	1965-84	7-22-84	3.81	178
06236000	Kirby Draw near Riverton, WY (station discontinued)	Lat 43°05'29", long 108°16'06", in NW¼SE¼ sec.3, T.1 N., R.5 E., Fremont County, Wind River Indian Reservation, on left bank 1.5 miles upstream from mouth and 7.0 miles northeast of Riverton.	129	1951-53[‡], 1961-84	4-24-84	3.18	110
06238760	West Fork Dry Cheyenne Creek at upper station, near Riverton, WY (station discontinued)	Lat 42°57'12", long 108°06'16", in NE¼NW¼ sec.4, T.34 N., R.94 W., Fremont County, on left bank 45 ft upstream from dim trail, 2.2 miles south of Ohio Road, and about 14 miles east of Riverton.	.69	1965-84	6-10-84	.61	2.9
06265600	Tie Down Gulch near Worland, WY (station discontinued)	Lat 43°53'15", long 108°07'45", in NW¼NW¼ sec.10, T.45 N., R.94 W., Washakie County, at culvert on U.S. Highway 20 and 12.3 miles southwest of Worland.	1.78	1961-84	8- 6-84	5.99	107
06267260	North Prong East Fork Nowater Creek near Worland, WY (station discontinued)	Lat 43°57', long 107°49', in SW¼SE¼ sec.18, T.46 N., R.91 W., Washakie County, on right bank 0.3 mile upstream from South Fork-Sand Creek Oil Field Road and 8.7 miles southeast of Worland.	3.77	1964-84	3- 8-84	2.06	22
06274190	Nowood River tributary No. 2 near Basin, WY (station discontinued)	Lat 44°16'42", long 107°54'33", in SE¼NE¼ sec.28, T.50 N., R.92 W., Big Horn County, on right bank 0.2 mile upstream from State Secondary Highway 0201, 2.7 miles east of Manderson, and 9.3 miles southeast of Basin.	1.51	1965-84	6-16-84	3.09	109
06312700	South Fork Powder River near Powder River, WY (station discontinued)	Lat 43°02'00", long 107°01'00", in SE¼NW¼ sec.3, T.35 N., R.85 W., Natrona County, 800 ft downstream from bridge on U.S. Highways 20 and 26 and 1.6 miles west of Powder River. Prior to July 11, 1973, at site 800 ft upstream at different datum.	262	1961-84	6- 1-84	7.03	770

See footnotes at end of table, p. 431.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Yellowstone River basin--Continued					
06313100	Coal Draw near Midwest, WY (station discontinued)	Lat 43°27'00", long 106°14'00", in NE¼SE¼ sec.8, T.40 N., R.78 W., Natrona County, at bridge on State Highway 387 and 3.4 miles northeast of Midwest.	11.4	1961-84	7-30-84	6.19	190
06316700	Coal Draw near Buffalo, WY (formerly Powder River tributary near Buffalo, WY, station discontinued)	Lat 44°30', long 106°08', in NE¼NW¼ sec.9, T.52 N., R.77 W., Johnson County, on right bank 0.5 mile upstream from bridge on Crazy Woman Creek-Arvada Road and about 30 miles northeast of Buffalo.	1.64	1965-84	6-15-84	1.78	74
06319100	Bull Creek near Buffalo, WY (station discontinued)	Lat 44°16'38", long 106°44'42", in SW¼NE¼ sec.29, T.50 N., R.82 W., Johnson County, 3.5 miles upstream from bridge on U.S. Highway 87 and 5.5 miles southwest of Buffalo.	10.8	1969-84	7-15-84	6.51	814
06324910	Cow Creek tributary near Weston, WY (station discontinued)	Lat 44°32'35", long 105°21'40", in SE¼ sec.26, T.53 N., R.71 W., Campbell County, at culvert on dirt road, about 0.4 mile upstream from mouth, and about 6.6 miles south of Weston.	.72	1971-84	6- 9-84	8.87	195
		Cheyenne River basin					
06387500	Turner Creek near Osage, WY (station discontinued)	Lat 44°00'49", long 104°30'12", in NW¼SE¼ sec.35, T.47 N., R.64 W., Weston County, at bridge on U.S. Highway 16, and 4.7 miles northwest of Osage. Prior to October 1, 1979, at site about 1 mile upstream at different datum.	47.8	1959-84	6- 9-84	11.28	680
06426195	Donkey Creek tributary above reservoir, near Gillette, WY (station discontinued)	Lat 44°16'57", long 105°25'38", in NW¼SW¼ sec.29, T.50 N., R.71 W., Campbell County, 0.1 mile upstream from culvert on U.S. Highways 14 and 16, 0.2 mile upstream from mouth, and 3.8 miles east of Gillette.	0.2	1970-84	6- 3-84	15.36	1.9
06427700	Inyan Kara Creek near Upton, WY (station discontinued)	Lat 44°13'45", long 104°26'45", in S½ sec.17, T.49 N., R.63 W., Crook County, at bridge on State Highway 116 and 13.0 miles northeast of Upton.	96.5	1959-84	6- 9-84	a8.29	(†)
06428100	Belle Fourche River tributary No. 2 near Hulett, WY (station discontinued)	Lat 44°41'35", long 104°32'10", in SW¼SW¼ sec.3, T.54 N., R.64 W., Crook County, at culvert on State Highway 24 and 3.2 miles east of Hulett.	10.2	1962-84	6- 9-84	5.49	8
		Platte River basin					
06634910	Medicine Bow River tributary near Hanna, WY (station discontinued)	Lat 42°00'32", long 106°29'32", in SE¼NW¼ sec.35, T.24 N., R.81 W., Carbon County, on left bank 0.2 mile upstream from dirt road, 1.0 mile east of North Road, and 10.2 miles northeast of Hanna.	3.01	1965-84	7-24-84	5.39	770
06641400	Bear Springs Creek near Alcova, WY (station discontinued)	Lat 42°31'57", long 106°41'56", in SE¼SE¼ sec.30, T.30 N., R.82 W., Natrona County, 250 ft upstream from culvert on Kortes Road and 1.6 miles southeast of Alcova. Prior to Oct. 1, 1970, at site 250 ft downstream at same datum.	9.33	1960-84	7-23-84	12.02	65

See footnotes at end of table, p. 431.

AVAILABLE

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Platte River basin--Continued					
06642700	Lawn Creek near Alcova, WY (station discontinued)	Lat 42°29'21", long 106°27'28", in SW¼SW¼ sec.8, T.29 N., R.80 W., Natrona County, at bridge on State Highway 487 and 13.9 miles southeast of Alcova.	11.5	1961-84	7-23-84	2.97	61
06643300	Coal Creek near Goose Egg, WY (station discontinued)	Lat 42°42'47", long 106°32'13", in SW¼NW¼ sec.27, T.32 N., R.81 W., Natrona County, 0.2 mile upstream from culvert on State Highway 220 and 4.2 miles southwest of Goose Egg. Prior to Oct. 1, 1970, at site 0.2 mile downstream at different datums.	5.39	1960-84	5- 1-84	5.96	27
06648780	Sage Creek tributary near Orpha, WY (station discontinued)	Lat 43°00'35", long 105°40'00", in NE¼NW¼ sec.18, T.35 N , R.73 W., Converse County, on right bank 600 ft upstream from culvert on Ross Road and about 14 miles northwest of Orpha.	1.38	1965-84	5-21-84	.51	17
06651800	Sand Creek near Orin, WY (station discontinued)	Lat 42°40'09", long 105°12'44", in NE¼SE¼ sec.11, T.31 N., R.70 W., Converse County, 27 ft upstream from three culverts on old U.S. Highway 87 and 1.6 miles northwest of Orin.	27.8	1955, 1961-84	7-22-84	8.10	940
06652400	Watkins Draw near Lost Springs, WY (formerly Watson Draw near Lost Springs, WY, station discontinued)	Lat 42°45'20", long 104°57'30", in SW¼SE¼ sec.12, T.32 N., R.68 W., Converse County, 350 ft downstream from culvert on U.S. Highway 20 and 2.1 miles southwest of Lost Springs. Prior to Sept. 30, 1963, at site 250 ft upstream at different datum.	6.95	1960-84	5- 1-84	3.93	36
06661580	Sevenmile Creek near Centennial, WY (station discontinued)	Lat 41°27'29", long 106°00'36", in NW¼SE¼ sec.11, T.17 N., R.77 W., Albany County, at culvert on county road and 12.7 miles northeast of Centennial.	11.2	1962-84	9- 7-84	6.94	235
06668040	Rabbit Creek near Wheatland, WY (station discontinued)	Lat 42°12'57", long 105°13'43", in NW¼NE¼ sec.22, T.26 N., R.70 W., Platte County, on right bank 200 ft east of Fletcher Park Road and about 17 miles northwest of Wheatland.	b1.3	1965-84	5- 1-84	.10	11
06762600	Lodgepole Creek tributary No. 2 near Albin, WY (station discontinued)	Lat 41°19'11", long 104°04'49", in SE¼SE¼ sec.28, T.16 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 6.8 miles south of Albin.	5.69	1960-84	7-31-84	8.07	310
		Green River basin					
09216290	East Otterson Wash near Green River, WY (station discontinued)	Lat 41°47'04", long 109°44'03", in SE¼SW¼NE¼ sec.23, T.21 N., R.109 W., Sweetwater County, 0.1 mile downstream from dirt road, 0.9 mile upstream from mouth, and 21 miles northwest of Green River.	16.6	1969-84	4-19-84	6.97	243
09216537	Delaney Draw near Red Desert, WY (station discontinued)	Lat 41°38'22", long 108°07'43", in SW¼NE¼ sec.8, T.19 N., R.95 W., Sweetwater County, 1.0 mile southwest of Red Desert and 1.7 miles upstream from culvert on Interstate Highway 80. Oct. 1, 1960, to Sept. 30, 1969, at site 1.6 miles downstream and Oct. 1, 1969, to Sept. 30, 1976, at site 0.4 mile downstream at different datums.	34.5	1961-84	7-31-84	11.17	31

See footnotes at end of table, p. 431.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Green River basin--Continued					
09221680	Mud Spring Hollow near Church Butte, near Lyman, WY (station discontinued)	Lat 41°23'05", long 110°11'12", in SW¼NE¼ sec.7, T.16 N., R.113 W., Uinta County, on left bank 0.4 mile upstream from culvert on U.S. Highway 30S and 6.7 miles northeast of Lyman.	8.83	1965-84	6- 3-84	1.12	20
09224820	Blacks Fork tributary No. 3 near Green River, WY (station discontinued)	Lat 41°25'30", long 109°36'55", in SW¼NW¼ sec.28, T.17 N., R.108 W., Sweetwater County, 50 ft upstream from dirt road, 1 mile upstream from mouth, and 10.5 miles southwest of Green River.	3.59	1965-84	7-20-84	7.98	245
09225200	Squaw Hollow near Burntfork, WY (station discontinued)	Lat 41°10'14", long 109°36'34", in NE¼NW¼ sec.29, T.14 N., R.108 W., Sweetwater County, 0.1 mile downstream from culvert on State Highway 530, 2.1 miles upstream from normal pool level of Flaming Gorge Reservoir, and 22 miles northeast of Burntfork. Prior to Oct. 1, 1969, at site 0.1 mile upstream at different datum.	6.57	1965-84	7-21-84	13.33	160

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‡ Operated as a continuous-record gaging station.
† Discharge not determined.
a Backwater from fence.
b Estimated.

Discharge measurements made at miscellaneous sites during water year 1984

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Yellowstone River Basin				
Unnamed tributary	Bighorn River	Lat 44°01'38", long 107°57'17", in SW¼NW¼SE¼ sec.24, T.47 N. R.92½ W., Washakie County, 50 ft downstream from U.S. Highway 16-20, at north edge of Worland.			7-13-84 7-25-84	0.97 1.62
West Fork	Little Bighorn River	Lat 44°59'33", long 107°40'57", in Sheridan County, Big Horn National Forest, 19 mi west of Parkman.		1982-83	7-23-84 8-30-84 9-21-84	29.4 25.5 23.8
Elkhorn Creek	Little Bighorn River	Lat 44°59'57", long 107°38'07", in NE¼ sec.17, T.58 N., R.89 W., Sheridan County, 100 ft upstream from mouth, and 16 mi west of Parkman.		1983	5-11-84 5-14-84 5-16-84 6- 1-84 6-27-84	15.6 44.2 56.1 20.7 6.80
Red Canyon Creek	Powers Upper Ditch (Spring Creek)	Lat 45°00'16", long 107°36'24", in NW¼NE¼NE¼ sec.16, T.58 N., R.89 W., Sheridan County, at Wyoming-Montana State line, 0.5 mi upstream from Powers Upper Ditch, and 15 mi west of Parkman.		1983	5-11-84 5-14-84 5-16-84 6- 1-84 6-27-84	14.2 36.7 50.0 13.0 4.41
		Platte River Basin				
Box Elder Creek	North Platte River	Lat 42°45'22", long 105°46'52", in SE¼ sec.12, T.32 N., R.75 W., Converse County, Converse County Park, at Madison-Precambrian Contact, 1.5 mi upstream from canals at canyon mouth, and 8.3 mi southeast of Glenrock.		1974 1975 1981-83	10-17-83 7-16-84	10.7 12.6
Box Elder Creek	North Platte River	Lat 42°45'46", long 105°46'35", in NW¼NW¼ sec.7, T.32 N., R.74 W., Converse County, Converse County Park, at Madison-Casper Contact, 0.8 mi upstream from canals at canyon mouth, and 8.1 mi southeast of Glenrock.		1974 1975 1981-83	10-17-83 7-16-84	10.3 12.6
Box Elder Creek	North Platte River	Lat 42°46'19", long 105°46'19", in W½ sec.6, T.32 N., R.74 W., Converse County, at Converse County Park boundary, 20 ft upstream from canals at canyon mouth, and 7.6 mi southeast of Glenrock.		1981-83	10-17-83 7-16-84	12.2 14.1

YELLOWSTONE RIVER BASIN

442715110504001 IRON SPRING CREEK ABOVE OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 15 LONG 110 50 40)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
13...	1305	120	17.0	<.10	8.5

442726110504801 IRON SPRING CREEK BELOW OLD FAITHFUL SEWAGE LAG, YNP (Lat 44 27 26 LONG 110 50 48)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
13...	1330	170	19.0	<.10	16

443403110224801 YELLOWSTONE RIVER AT FISHING BRIDGE, YNP (LAT 44 34 03 LONG 110 22 48)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
21...	1305	90	18.0	<.10	4.7

443446110223001 YELLOWSTONE RIVER BELOW FISHING BRIDGE, YNP (LAT 44 34 46 LONG 110 22 30)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
21...	1300	87	19.5	<.10	4.8

443459110222501 YELLOWSTONE RIVER BELOW FISHING BRIDGE LAGOONS, YNP (LAT 44 34 59 LONG 110 22 25)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
21...	1355	85	19.5	<.10	4.6

443832110522801 MADISON RIVER BELOW MADISON JUNCTION, YNP (LAT 44 38 32 LONG 110 52 28)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
17...	1300	400	20.5	<.10	51

YELLOWSTONE RIVER BASIN--Continued

443835110515001 MADISON RIVER NEAR MADISON JUNCTION, YNP (LAT 44 38 35 LONG 110 51 50)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG , 1984					
17...	1315	385	21.0	<.10	51

BIGHORN RIVER BASIN

435604108112601 WOOD RIVER TRIBUTARY AT MOUTH, WY (LAT 43 56 04 LONG 108 11 26)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
SEP , 1984										
20...	1630	12	160	7.0	6.0	80	26	3.6	4.2	.2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
SEP , 1984									
20...	1.0	51	24	10	100	.14	3.2	.17	<.010

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
SEP , 1984									
20...	1630	<2.2	<.4	<1.2	<.4	<1.0	<.4	.05	.5

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
SEP , 1984												
20...	1630	<1	<1	<1	1	<10	<10	<1	<1	3	2	120

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	URANIUM NATURAL DISSOLVED (UG/L AS U)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
SEP , 1984												
20...	18	2	<1	20	3	<.1	<.1	<1	<1	.5	<3	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CHEYENNE RIVER BASIN

440144105205401 SURFACE POND AT CORDERO MINE (LAT 44 01 44 LONG 105 20 54)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	CAR-BONATE IT-FLD (MG/L AS CO3)
JUN , 1984											
28...	1500	1930	8.3	25.0	750	170	79	200	13	185	.000

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	BORON, DIS-SOLVED (UG/L AS B)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
JUN , 1984										
28...	880	13	.40	3.6	.55	.010	<.010	7	180	5.4

PLATTE RIVER BASIN

06676550 HORSE CREEK AT WYCROSS RANCH, NEAR LA GRANGE, WY (LAT 41 40 35 LONG 104 12 11)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT									
26...	1100	34	558	K980	.50	.040	.96	1.0	.040

K-Results based on colony count outside the acceptable range (non-ideal colony count).

GREEN RIVER BASIN

424425110040701 COTTONWOOD CREEK NEAR DANIEL, WY (LAT 42 44 25 LONG 110 04 07)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR , 1984												
04...	0915	560	8.8	300	73	29	18	.5	1.5	292	47	3.8

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
APR , 1984											
04...	.20	8.6	360	.48	<.10	<.10	.030	<.20	.020	20	57

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

430634109544701 NEW FORK RIVER AT INLET TO NEW FORK LAKE, NEAR PINEDALE, WY (LAT 43 06 34 LONG 109 54 47)

DATE	TIME	SPECIFIC CONDUCTANCE LAB (UMHOS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE, FET-LAB (MG/L AS HCO3)	CARBONATE, FET-LAB (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)
AUG , 1984											
19...	1100	43	--	<.02	.80	1.1	--	.80	22	<1	3.1

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG , 1984										
19...	.24	<.07	<.01	4.0	16	--	.02	<.010	21	3

ION CHROMOTOGRAPHY ANALYSIS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BROMIDE DISSOLV (UG/L)	CHLORIDE DISSOLV (UG/L)	FLUORIDE DISSOLV (UG/L)	NITROGEN NITRATE DISSOLV (UG/L)	PHOSPHORUS, ORTHO, DISSOLVED (UG/L AS P)	SULFATE DISSOLV (UG/L)
AUG , 1984							
19...	1100	<10.0	240	70.0	10.0	<10.0	3050

430511109554001 NEW FORK LAKE SITE 2 (LAT 43 05 11 LONG 109 55 40)

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE LAB (UMHOS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE, FET-LAB (MG/L AS HCO3)
NOV , 1983										
02...	1515	50.0	42	17	5.2	.90	2.0	.2	.60	23
02...	1530	25.0	40	16	4.8	.90	2.0	.2	.70	22
02...	1545	20.0	37	14	4.4	.80	1.8	.2	.60	20
02...	1600	1.0	35	13	4.0	.70	1.9	.2	.60	19
JUN , 1984										
13...	1100	50.0	44	18	5.6	1.0	1.4	.1	.60	25
13...	1110	20.0	41	16	5.1	.90	1.2	.1	.50	23
13...	1120	10.0	40	16	5.0	.90	1.2	.1	.70	22
13...	1130	1.0	41	16	5.0	.90	1.3	.1	.70	22
AUG										
18...	1300	50.0	46	--	<.02	1.0	1.3	--	.60	24
18...	1315	40.0	--	--	--	--	--	--	--	--
18...	1330	30.0	--	--	--	--	--	--	--	--
18...	1345	20.0	--	--	--	--	--	--	--	--
18...	1400	10.0	--	--	--	--	--	--	--	--
18...	1405	8.0	31	--	<.02	.60	.90	--	.50	17
18...	1410	6.0	30	--	<.02	.60	.80	--	.40	16
18...	1415	1.0	32	--	<.02	.70	.90	--	.40	18

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

430511109554001 NEW FORK LAKE SITE 2 (LAT 43 05 11 LONG 109 55 40)--Continued

DATE	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV , 1983										
02...	<1	3.1	.40	<.10	--	4.6	24	28	.03	.70
02...	<1	3.1	.40	<.10	--	4.0	25	27	.03	.50
02...	<1	2.9	.40	<.10	--	3.7	22	25	.03	.80
02...	<1	2.4	.30	<.10	--	3.5	22	23	.03	1.2
JUN , 1984										
13...	<1	2.9	.40	.10	--	4.7	27	29	.04	--
13...	<1	2.8	.40	<.10	--	4.0	25	26	.03	--
13...	<1	2.8	.40	<.10	--	4.0	30	26	.04	--
13...	<1	2.7	.50	<.10	--	4.0	23	26	.03	--
AUG										
18...	<1	2.7	.33	<.06	<.01	4.9	25	--	.03	--
18...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
18...	<1	1.9	.25	<.04	<.01	2.6	12	--	.02	--
18...	<1	1.7	.24	<.05	<.01	2.6	11	--	.02	--
18...	<1	1.7	.23	<.05	<.01	2.5	17	--	.02	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
NOV , 1983									
02...	<.10	.010	--	.010	50	10	1.5	.300	<.100
02...	<.10	.010	--	<.010	40	10	1.4	.300	<.100
02...	<.10	<.010	--	<.010	40	<10	2.0	.300	<.100
02...	<.10	<.010	--	<.010	30	<10	1.9	2.70	<.100
JUN , 1984									
13...	--	--	--	--	44	61	--	--	--
13...	--	--	--	--	16	3	--	--	--
13...	--	--	--	--	29	3	--	--	--
13...	--	--	--	--	25	2	--	--	--
AUG									
18...	--	--	<.010	--	24	27	--	.200	<.100
18...	--	--	--	--	--	--	--	.200	<.100
18...	--	--	--	--	--	--	--	.600	<.100
18...	--	--	--	--	--	--	--	.500	<.100
18...	--	--	--	--	--	--	--	1.10	<.100
18...	--	--	<.010	--	13	<1	--	--	--
18...	--	--	<.010	--	12	<1	--	--	--
18...	--	--	<.010	--	15	<1	--	.300	<.100

ION CHROMOTOGRAPHY ANALYSIS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BROMIDE DISSOLV (UG/L)	CHLO-RIDE DISSOLV (UG/L)	FLUO-RIDE DISSOLV (UG/L)	NITRO-GEN NITRATE DISSOLV (UG/L)	PHOS-PHORUS, ORTHO, DIS-SOLVED (UG/L AS P)	SULFATE DISSOLV (UG/L)
NOV , 1983							
02...	1515	--	--	--	--	--	3090
02...	1530	--	--	--	--	--	3070
02...	1545	--	--	--	--	--	2930
02...	1600	--	--	--	--	--	2390
JUN , 1984							
13...	1100	--	--	--	--	--	2850
13...	1110	--	--	--	--	--	2770
13...	1120	--	--	--	--	--	2760
13...	1130	--	--	--	--	--	2700
AUG							
18...	1300	<10.0	330	60.0	100	<10.0	2680
18...	1405	<10.0	250	40.0	<10.0	<10.0	1860
18...	1410	<10.0	240	50.0	<10.0	<10.0	1680
18...	1415	<10.0	230	50.0	50.0	<10.0	1740

430511109554001 NEW FORK LAKE SITE 2 (LAT 43 05 11 LONG 109 55 40)--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PHYTOPLANKTON ANALYSES

JUNE 13, 1984

	DEPTH				
TAXA	10M	20M	30M	40M	50M
BACILLARIOPHYTA (DIATOMS)					
CYCLOTELLA STELLIGERA	313	63	--	156	31
RHIZOSOLENIA ERIENSIS	625	313	156	156	250
RHIZOSOLENIA ERIENSIS VAR. PUSILLA	250	--	--	--	63
ORDER PENNALES					
ACHNANTHES AFFINIS	--	31	--	--	--
ASTERIONELLA FORMOSA	--	--	375	--	--
DIATOMA HIEMALE VAR. MESODON	--	31	--	--	--
EUNOTIA SP.	--	--	31	--	--
FRAGILARIA VAUCHERIAE VAR. CAPITELLATA	--	--	--	31	--
HANTZSCHIA AMPHIOXYS	--	31	--	--	--
NAVICULA NOTHA	--	31	--	--	--
NITZSCHIA ACICULARIS	63	--	--	--	--
NITZSCHIA IGNORATA	63	--	--	--	--
SYNEDRA CYCLOPUM	63	--	--	31	--
SYNEDRA FASCICULATA	63	--	--	--	--
SYNEDRA RADIANS	--	31	--	--	--
SYNEDRA RUMPENS	--	63	--	--	--
SYNEDRA ULNA VAR. LONGISSIMA	--	63	--	--	--
TABELLARIA FENESTRATA	--	--	--	31	--
CHLOROPHYTA (GREEN ALGAE)					
CHLAMYDOMONAS SP.	63	--	125	--	--
EUDORINA SP.	500	--	--	--	--
GLOEOCYSTIS SP.	1250	--	--	--	--
TETRASPORA SP.	--	--	375	--	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)					
DINOBRYON DIVERGENS	--	--	--	31	94
MALLOMONAS SP.	125	31	31	94	--
CYST	--	31	--	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)					
APHANOCAPSA DELICATISSIMA	--	781	--	94	--
CHROOCOCCUS SP.	--	31	--	--	--
OSCILLATORIA LIMNETICA	--	--	--	750	--
PSEUDOANABAENA SP.	625	--	--	--	--
CRYPTOPHYTA (CRYPTOMONADS)					
RHODOMONAS SP.	188	--	--	63	--
TOTAL CELLS/ML	4191	1531	1093	1406	438
NUMBER OF SPECIES	13	13	6	10	4
DRY WEIGHT	<0.1	<0.1	<0.1	0.1	<0.1

AUGUST 18, 1984

	DEPTH					
TAXA	SURF.	10M	20M	30M	40M	50M
BACILLARIOPHYTA (DIATOMS)						
ORDER CENTRALES						
CYCLOTELLA BODANICA	--	13	13	13	13	--
CYCLOTELLA STELLIGERA	13	--	--	--	--	13
RHIZOSOLENIA ERIENSIS	13	--	13	--	13	--
ORDER PENNALES						
ASTERIONELLA FORMOSA	13	--	--	--	--	--
NITZSCHIA DISSIPATA	--	--	25	--	--	--
SYNEDRA DELICATISSIMA	--	--	--	--	--	13
SYNEDRA RADIANS	25	--	--	--	--	38
SYNEDRA RUMPENS VAR. FAMILIARIS	13	--	--	--	--	--
CHLOROPHYTA (GREEN ALGAE)						
CLOSTERIOPSIS LONGISSIMA	--	13	--	--	--	--
QUADRIGULA LACUSTRIS	--	--	--	--	38	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)						
DINOBRYON DIVERGENS	63	--	--	--	--	38
MALLOMONAS SP.	--	--	--	13	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)						
APHANOCAPSA DELICATISSIMA	638	--	--	325	--	--
APHANOTHECE SAXICOLA	--	1150	--	--	150	--
OSCILLATORIA LIMNETICA	250	--	--	100	125	663
CRYPTOPHYTA (CRYPTOMONADS)						
RHODOMONAS SP.	13	--	13	13	--	--
TOTAL CELLS/ML	1041	1189	64	464	339	765
NUMBER OF SPECIES	9	3	4	5	5	5
DRY WEIGHT (MG/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

430511109554001 NEW FORK LAKE SITE 2 (LAT 43 05 11 LONG 109 55 40)--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

ZOOPLANKTON ANALYSES

JUNE 12, 1984

TAXA	DEPTH				
	0-10M	0-20M	0-30M	0-40M	0-50M
PROTOZOA					
DIFFLUGIA SP.	--	--	20	--	--
ROTATORIA					
FILINIA LONGISETA	--	40	60	40	20
KELLICOTTIA LONGISPINA	60	80	20	200	60
KERATELLA COCHLEARIS	--	--	--	--	20
LEPADELLA SP.	--	--	--	20	20
CRUSTACEA					
CLADOCERA					
DAPHNIA CATAWBA	--	20	--	--	--
DAPHNIA ROSEA	760	520	420	320	140
LEPTODORA KINDTII	80	80	40	60	--
COPEPODA					
CYCLOPS BICUSPIDATUS THOMASI	140	160	140	160	160
DIAPTOMUS ASHLANDI	500	520	400	900	480
NAUPLII	580	640	860	880	820
TOTAL	2120	2060	1960	2580	1720
NUMBER OF SPECIES	5	7	7	7	7
DRY WEIGHT (MG/SAMPLE)	7.0	5.9	6.9	6.9	8.3

ZOOPLANKTON ANALYSES

AUGUST 18, 1984

TAXA	DEPTH				
	0-10M	0-20M	0-30M	0-40M	0-50M
ROTATORIA					
KELLICOTTIA LONGISPINA	--	--	121	--	122
KERATELLA COCHLEARIS	--	145	--	--	--
CRUSTACEA					
CLADOCERA					
DAPHNIA ROSEA	9555	18125	17182	15150	15738
LEPTODORA KINDTII	74	--	--	--	122
COPEPODA					
CYCLOPS BICUSPIDATUS THOMASI	74	--	--	150	122
DIAPTOMUS ASHLANDI	147	435	363	450	244
NAUPLII	74	290	242	--	--
TOTAL	9924	18995	17908	15750	16348
NUMBER OF SPECIES	4	3	3	3	4
DRY WEIGHT (MG/SAMPLE)	94.9	129.2	116.8	129.4	132.7

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

430526109571001 NEW FORK LAKE SITE 1 (LAT 43 05 26 LONG 109 57 10)

DATE	TIME	SAMPLING DEPTH (M)	SPECIFIC CONDUCTANCE LAB (UMHOS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE, FET-LAB (MG/L AS HCO3)
FEB , 1984										
23...	1130	30.0	36	15	4.5	.80	1.1	.1	.60	19
23...	1200	15.0	42	14	4.4	.80	1.0	.1	.70	21
23...	1230	5.0	42	15	4.5	.80	1.1	.1	.70	21

DATE	CARBONATE, FET-LAB (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	SULFATE DISSOLV (UG/L)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
FEB , 1984									
23...	<1	2.6	2610	.40	<.10	3.5	--	23	.03
23...	<1	2.4	2400	.30	<.10	3.3	24	23	.03
23...	<1	2.4	2420	.30	<.10	3.4	26	24	.04

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	SELENIUM, DISSOLVED (UG/L AS SE)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
FEB , 1984									
23...	<.20	--	<.005	<.002	<3	<1	--	1.20	.200
23...	.20	<.10	<.005	<.002	6	<1	--	.100	<.100
23...	--	<.10	<.005	<.002	<3	<1	<1	1.00	.100

430526109570901 NEW FORK LAKE SITE 1 (LAT 43 05 26 LONG 109 57 09)--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PHYTOPLANKTON ANALYSES

JUNE 13, 1984

TAXA	DEPTH 10M	20M	30M
BACILLARIOPHYTA (DIATOMS)			
ORDER CENTRALES			
CYCLOTELLA BODANICA	31	--	31
RHIZOSOLENIA ERIENSIS	--	31	531
ORDER PENNALES			
ACHNANTHES AFFINIS	--	--	63
ASTERIONELLA FORMOSA	--	250	438
EUNOTIA SP.	31	--	--
NAVICULA NOTHA	--	--	63
NITZSCHIA IGNORATA	31	--	--
SYNEDRA CYCLOPUM	--	31	188
TABELLARIA FENESTRATA	--	--	31
CHLOROPHYTA (GREEN ALGAE)			
CHLORELLA ELLIPSOIDEA	--	1188	500
TETRASPORA SP.	3156	3313	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)			
DINOBRYON DIVERGENS	--	--	313
MALLOMONAS SP.	31	31	--
CRYPTOPHYTA (CRYPTOMONADS)			
CRYPTOMONAS SP.	--	--	94
RHODOMONAS SP.	531	--	--
FLAGELLATE	63	31	--
TOTAL CELLS/ML	3874	4875	2252
NUMBER OF SPECIES	7	7	10
DRY WEIGHT (MG/L)	<0.1	<0.1	<0.1

ZOOPLANKTON ANALYSES

JUNE 12, 1984

TAXA	DEPTH 0-10M	0-20M	0-30M
PROTOZOA			
DIFFLUGIA SP.	--	--	20
ROTATORIA			
KELLICOTTIA LONGISPINA	60	40	--
KERATELLA COCHLEARIS	--	40	--
CRUSTACEA			
CLADOCERA			
DAPHNIA CATAWBA	640	1140	1680
DAPHNIA ROSEA	200	260	760
LEPTODORA KINDTII	20	20	--
COPEPODA			
CYCLOPS BICUSPIDATUS THOMASI	80	260	180
DIAPTOMUS ASHLANDI	380	180	440
NAUPLII	660	780	400
TOTAL	2040	2720	3480
NUMBER OF SPECIES	6	7	5
DRY WEIGHT (MG/SAMPLE)	4.9	10.6	32.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

430513109580501 NEW FORK RIVER AT OUTLET FROM NEW FORK LAKE, NEAR PINEDALE, WY (LAT 43 05 13 LONG 109 58 05)

DATE	TIME	SPECIFIC CONDUCTANCE LAB (UMHOS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE, FET-LAB (MG/L AS HCO3)	CARBONATE, FET-LAB (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)
AUG , 1984											
19...	1500	48	--	<.02	1.1	1.2	--	.70	26	<1	2.4

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG , 1984										
19...	.40	<.06	<.01	3.1	17	--	.02	<.010	15	<1

ION CHROMOTOGRAPHY ANALYSIS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BROMIDE DISSOLV (UG/L)	CHLORIDE DISSOLV (UG/L)	FLUORIDE DISSOLV (UG/L)	NITROGEN NITRATE DISSOLV (UG/L)	PHOSPHORUS, ORTHO, DISSOLVED (UG/L AS P)	SULFATE DISSOLV (UG/L)
AUG , 1984							
19...	1500	<10.0	400	60.0	<10.0	<10.0	2410

430128109463701 PINE CREEK AT INLET TO FREMONT LAKE, NEAR PINEDALE, WY (LAT 43 01 28 LONG 109 46 37)

DATE	TIME	SPECIFIC CONDUCTANCE LAB (UMHOS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE, FET-LAB (MG/L AS HCO3)	CARBONATE, FET-LAB (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)
JUN , 1984											
09...	1605	23	9	3.0	.40	.80	.1	.50	14	<1	1.9
AUG											
19...	1200	16	--	<.02	.20	.50	--	.40		<1	1.1

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JUN , 1984										
09...	.40	<.10	--	3.6	14	17	.02	--	15	3
AUG										
19...	.23	<.02	<.01	.6	<1	--	--	<.010	9	3

ION CHROMOTOGRAPY ANALYSIS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BROMIDE DISSOLV (UG/L)	CHLORIDE DISSOLV (UG/L)	FLUORIDE DISSOLV (UG/L)	NITROGEN NITRATE DISSOLV (UG/L)	PHOSPHORUS, ORTHO, DISSOLVED (UG/L AS P)	SULFATE DISSOLV (UG/L)
JUN , 1984							
09...	1605	--	--	--	--	--	1940
AUG							
19...	1200	<10.0	230	20.0	20.0	<10.0	1120

425910109473001 FREMONT LAKE SITE 2 (LAT 42 59 10 LONG 109 47 30)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PHYTOPLANKTON ANALYSES

JUNE 10, 1984

TAXA	DEPTH 10M	20M	30M	40M	80M
BACILLARIOPHYTA (DIATOMS)					
ORDER CENTRALES					
CYCLOTELLA BODANICA	31	125	63	31	63
CYCLOTELLA KUTZINGIANA	31	--	--	--	--
CYCLOTELLA STELLIGERA	--	500	63	63	63
MELOSIRA ISLANDICA	--	--	--	625	--
RHIZOSOLENIA ERIENSIS	438	3938	3688	2000	969
RHIZOSOLENIA ERIENSIS VAR. PUSILLA	--	250	31	--	--
ORDER PENNALES					
ACHNANTHES AFFINIS	--	--	31	--	--
ASTERIONELLA FORMOSA	1188	1500	1063	531	250
DIATOMA HIEMALE VAR. MESODON	--	--	31	--	--
PINNULARIA SP.	--	--	31	--	--
TABELLARIA FENESTRATA	781	--	625	--	--
CHLOROPHYTA (GREEN ALGAE)					
CHLAMYDOMONAS DINOBRYON	--	--	313	156	156
CHLORELLA ELLIPSOIDEA	406	7500	2188	1688	1750
STAURASTRUM SP.	--	--	31	--	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)					
DINOBRYON DIVERGENS	7188	7188	1032	438	344
MALLOMONAS SP.	--	--	--	31	--
CYANOPHYTA (BLUE-GREEN ALGAE)					
APHANOCAPSA DELICATISSIMA	406	--	--	--	313
CHROOCOCCUS SP.	--	--	31	--	31
CRYPTOPHYTA (CRYPTOMONADS)					
RHODOMONAS SP.	438	--	--	--	31
TOTAL CELLS/ML	10907	21001	9221	5563	3970
NUMBER OF SPECIES	9	7	14	9	10
DRY WEIGHT (MG/L)	<0.1	<0.1	<0.1	<0.1	<0.1

ZOOPLANKTON ANALYSES

JUNE 12, 1984

TAXA	DEPTH 0-10M	0-20M	0-30M	0-40M	0-80M
PROTOZOA					
DIFFLUGIA SP.	--	20	13	13	--
ROTATORIA					
KELLICOTTIA LONGISPINA	10	20	40	--	--
KERATELLA COCHLEARIS	40	90	120	320	293
POLYARTHRA SP.	--	--	13	53	67
CRUSTACEA					
CLADOCERA					
DAPHNIA CATAWBA	--	20	13	13	13
DAPHNIA ROSEA	40	50	13	53	120
LEPTODORA KINDTII	--	--	27	13	13
COPEPODA					
CYCLOPS BICUSPIDATUS THOMASI	60	60	13	27	80
DIAPTOMUS ASHLANDI	10	40	80	120	67
NAUPLII	290	430	466	760	640
TOTAL	450	730	798	1372	1293
NUMBER OF SPECIES	4	7	9	8	7
DRY WEIGHT (MG/SAMPLE)	2.5	3.6	4.1	4.9	4.8

GREEN RIVER BASIN--Continued

425619109483501 FREMONT LAKE SITE 1 (LAT 42 56 19 LONG 109 48 35)

DATE	TIME	SAM-PLING DEPTH (M)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)
NOV , 1983										
03...	1530	180	21	7	2.4	.30	1.7	.3	.50	12
03...	1600	30.0	21	7	2.3	.30	1.4	.2	.50	12
03...	1615	22.0	19	6	2.1	.30	1.4	.2	.50	11
03...	1630	1.0	20	7	2.2	.30	1.3	.2	.50	11
FEB , 1984										
22...	1500	120	27	7	2.4	.30	.70	.1	.60	12
22...	1600	50.0	26	7	2.4	.30	.60	.1	.50	12
22...	1630	5.0	27	7	2.5	.30	.80	.1	.50	12
JUN										
09...	1715	175	22	7	2.5	.30	.70	.1	.40	12
09...	1730	40.0	22	7	2.5	.30	.70	.1	.40	12
09...	1745	5.0	21	7	2.5	.30	.70	.1	.50	12
09...	1800	1.0	21	8	2.5	.40	.70	.1	.40	12
AUG										
17...	1500	170	23	--	<.02	.30	.80	--	.60	11
17...	1515	80.0	--	--	--	--	--	--	--	--
17...	1530	40.0	--	--	--	--	--	--	--	--
17...	1545	30.0	--	--	--	--	--	--	--	--
17...	1600	20.0	--	--	--	--	--	--	--	--
17...	1605	15.0	--	--	--	--	--	--	--	--
17...	1615	10.0	--	--	--	--	--	--	--	--
17...	1620	11.0	22	--	<.02	.30	.70	--	.40	11
17...	1625	8.0	20	--	<.02	.30	.60	--	.50	10
17...	1630	1.0	20	--	<.02	.30	.60	--	.40	11
SEP										
11...	1500	180	--	--	--	--	--	--	--	--
11...	1530	80.0	--	--	--	--	--	--	--	--
11...	1545	24.0	--	--	--	--	--	--	--	--
11...	1600	1.0	--	--	--	--	--	--	--	--

DATE	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV , 1983										
03...	<1	1.8	.60	<.10	--	1.6	13	15	.02	.60
03...	<1	1.8	.50	<.10	--	1.3	15	14	.02	.60
03...	<1	1.6	.40	<.10	--	<1.2	13	--	.02	.50
03...	<1	1.6	.40	<.10	--	<1.2	11	--	.02	.70
FEB , 1984										
22...	<1	1.8	<.20	<.10	--	1.6	--	--	--	<.20
22...	<1	1.8	<.20	<.10	--	1.5	--	--	--	--
22...	<1	1.9	<.20	<.10	--	1.5	--	--	--	<.20
JUN										
09...	<1	1.8	.50	<.10	--	2.3	10	14	.01	--
09...	<1	1.8	.50	<.10	--	1.4	11	14	.02	--
09...	<1	1.8	.60	<.10	--	1.4	8	14	.01	--
09...	<1	1.8	.50	<.10	--	1.4	6	14	.00	--
AUG										
17...	<1	1.8	.42	<.03	<.01	2.3	8	--	.01	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	<1	1.7	.39	<.03	<.01	1.2	2	--	.00	--
17...	<1	1.5	.32	<.03	<.01	1.3	2	--	.00	--
17...	<1	1.4	.31	<.03	<.01	1.4	6	--	.00	--
SEP										
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

425619109483501 FREMONT LAKE SITE 1 (LAT 42 59 19 LONG 109 48 35)--Continued

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
NOV , 1983										
03...	<.10	.010	--	<.010	20	10	--	1.2	<.100	<.100
03...	<.10	<.010	--	.010	30	<10	--	1.1	.300	<.100
03...	<.10	<.010	--	<.010	20	<10	--	1.2	.300	<.100
03...	<.10	<.010	--	<.010	30	<10	--	1.4	.800	<.100
FEB , 1984										
22...	--	<.005	--	<.002	<3	<1	--	--	<.100	<.100
22...	--	<.005	--	<.002	<3	<1	<1	--	<.100	<.100
22...	--	<.005	--	.003	4	1	--	--	2.10	<.100
JUN										
09...	--	--	--	--	16	15	--	--	--	--
09...	--	--	--	--	<3	1	--	--	--	--
09...	--	--	--	--	<3	1	--	--	--	--
09...	--	--	--	--	<3	1	--	--	--	--
AUG										
17...	--	--	<.010	--	8	3	--	--	<.100	<.100
17...	--	--	--	--	--	--	--	--	<.100	<.100
17...	--	--	--	--	--	--	--	--	.100	<.100
17...	--	--	--	--	--	--	--	--	.200	<.100
17...	--	--	--	--	--	--	--	--	1.10	<.100
17...	--	--	--	--	--	--	--	--	7.80	<.100
17...	--	--	--	--	--	--	--	--	.400	<.100
17...	--	--	<.010	--	11	<1	--	--	--	--
17...	--	--	<.010	--	6	4	--	--	--	--
17...	--	--	<.010	--	8	<1	--	--	<.100	<.100
SEP										
11...	--	--	--	--	--	--	--	--	<.100	<.100
11...	--	--	--	--	--	--	--	--	<.100	<.100
11...	--	--	--	--	--	--	--	--	4.70	.200
11...	--	--	--	--	--	--	--	--	.200	<.100

ION CHROMOTOGRAPHY ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BROMIDE DISSOLV (UG/L)	CHLO-RIDE DISSOLV (UG/L)	FLUO-RIDE DISSOLV (UG/L)	NITRO-GEN NITRATE DISSOLV (UG/L)	PHOS-PHORUS, ORTHO, DIS-SOLVED (UG/L AS P)	SULFATE DISSOLV (UG/L)
NOV , 1983							
03...	1530	--	--	--	--	--	1830
03...	1600	--	--	--	--	--	1820
03...	1615	--	--	--	--	--	1640
03...	1630	--	--	--	--	--	1630
FEB , 1984							
22...	1500	--	--	--	--	--	1750
22...	1600	--	--	--	--	--	1770
22...	1630	--	--	--	--	--	1880
JUN							
09...	1715	--	--	--	--	--	1810
09...	1730	--	--	--	--	--	1800
09...	1745	--	--	--	--	--	1790
09...	1800	--	--	--	--	--	1790
AUG							
17...	1500	<10.0	420	30.0	60.0	<10.0	1770
17...	1620	<10.0	390	30.0	<10.0	<10.0	1680
17...	1625	<10.0	320	30.0	<10.0	<10.0	1470
17...	1630	<10.0	310	30.0	<10.0	<10.0	1390

425619109583501 FREMONT LAKE SITE 1 (LAT 42 56 19 LONG 109 48 35)--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PHYTOPLANKTON ANALYSES

JUNE 11, 1984

TAXA	DEPTH							
	1M	10M	20M	30M	40M	80M	120M	150M
BACILLARIOPHYTA (DIATOMS)								
ORDER CENTRALES								
CYCLOTELLA BODANICA	--	63	--	--	--	31	--	--
CYCLOTELLA STELLIGERA	94	--	63	63	31	31	--	--
MELOSIRA ISLANDICA	--	--	--	--	--	--	--	125
MELOSIRA LIRATA	--	--	--	--	--	--	--	125
RHIZOSOLENIA ERIENSIS	2906	875	1406	2906	1344	969	1032	31
RHIZOSOLENIA ERIENSIS VAR. PUSILLA	125	--	31	31	--	--	--	--
ORDER PENNALES								
ACHNANTHES AFFINIS	--	--	--	31	--	--	--	--
ASTERIONELLA FORMOSA	813	1438	813	1313	688	--	282	--
SYNEDRA CYCLOPUM	--	--	--	--	31	--	--	--
TABELLARIA FENESTRATA	625	750	--	--	--	--	--	--
CHLOROPHYTA (GREEN ALGAE)								
CHLAMYDOMONAS SP.	--	--	--	62	156	656	63	63
CHLORELLA ELLIPSOIDEA	938	31	125	1656	--	2156	1188	--
CLOSTERIUM SP.	--	31	--	--	--	--	--	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)								
DINOBRYON DIVERGENS	9281	5938	7687	11750	437	157	625	--
MALLOMONAS SP.	--	--	--	--	--	31	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)								
APHANOCAPSA DELICATISSIMA	--	--	--	250	--	969	--	--
CHROOCOCCUS SP.	156	--	--	--	--	--	--	--
OSCILLATORIA LIMNETICA	--	--	--	--	875	--	--	--
PHRROPHYTA (DINOFLAGELLATES)								
PERIDINIUM SP.	--	94	--	--	--	--	--	--
CRYPTOPHYTA (CRYPTOMONADS)								
RHODOMONAS SP.	--	31	--	--	--	--	31	63
TOTAL CELLS/ML	14938	9251	10125	18062	3562	5000	3221	407
NUMBER OF SPECIES	8	9	6	9	7	8	6	5
DRY WEIGHT (MG/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

425619109483501 FREMONT LAKE SITE 1 (LAT 42 56 19 LONG 109 48 35)--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PHYTOPLANKTON ANALYSES

AUGUST 17, 1984

	DEPTH							
TAXA	SURF.	10M	15M	20M	30M	40M	80M	170M
BACILLARIOPHYTA (DIATOMS)								
ORDER CENTRALES								
CYCLOTELLA BODANICA	100	163	63	50	63	13	--	--
CYCLOTELLA KUTZINGIANA	--	--	--	--	25	--	50	--
CYCLOTELLA STELLIGERA	--	--	--	50	--	--	--	--
MELOSIRA LIRATA	--	--	--	150	--	--	--	--
RHIZOSOLENIA ERIENSIS	100	175	338	213	94	--	13	--
ORDER PENNALES								
ASTERIONELLA FORMOSA	--	--	13	--	--	--	--	--
SYNEDRA RUMPENS	--	--	--	25	--	--	--	13
TABELLARIA FENESTRATA	--	150	350	450	200	50	13	38
CHLOROPHYTA (GREEN ALGAE)								
ANKISTRODESMUS BRAUNII	--	13	--	--	--	--	--	--
ANKISTRODESMUS NANNOSELENE	--	13	--	--	--	--	--	--
BOTRYOCOCCUS PROTUBRANS VAR. MINOR	--	--	50	225	--	--	--	--
CHLAMYDOMONAS DINOBRYON	--	--	25	13	--	--	--	--
CHLAMYDOMONAS SP.	100	13	--	--	--	--	--	--
DICTYOSPHAERIUM SP.	--	--	--	--	--	125	--	--
GONIUM SP.	--	75	--	--	--	--	--	--
OOCYSTIS SP.	--	100	--	--	--	--	--	--
PLEODORINA ILLINOISENSIS	--	213	--	--	--	--	--	--
SCENEDESMUS DIMORPHUS	--	--	--	--	--	--	--	25
SCHROEDERIA SETIGERA	--	--	--	--	13	13	--	--
SPONDYLOSIUM PLANUM	--	75	--	--	--	--	--	--
VOLVOX SP.	--	--	19675	1813	325	--	--	38
WISLOUCHIELLA PLANKTONICA	--	13	--	--	--	--	--	--
RESTING SPORES	--	13	--	--	--	--	--	--
CHRYSOPHYTA (GOLDEN-BROWN ALGAE)								
DINOBRYON BAVARICUM	613	75	13	--	--	--	--	--
DINOBRYON CYLINDRICUM	--	--	25	200	200	--	--	88
DINOBRYON DIVERGENS	25	--	--	--	38	--	13	--
MALLOMONAS SP.	25	--	--	--	--	--	--	--
EPIPHYTE ON A. FORMOSA	25	--	150	--	--	--	--	--
CYANOPHYTA (BLUE-GREEN ALGAE)								
APHANOCAPSA DELICATISSIMA	75	--	2038	4750	1100	400	00	450
APHANOCAPSA SP.	50	1150	2238	--	--	--	--	--
APHANOTHECE SP.	713	3738	225	1388	250	450	--	--
CHROOCOCCUS LIMNETICUS	100	--	13	13	--	13	--	--
PHRROPHYTA (DINOFLAGELLATES)								
PERIDINIUM INCONSPICUA	25	--	--	--	--	--	--	--
CRYPTOPHYTA (CRYPTOMONADS)								
CHROOMONAS SP.	--	13	--	--	--	--	--	--
RHODOMONAS SP.	275	263	13	50	88	38	--	13
TOTAL CELLS/ML	2260	6255	25229	9390	2396	977	214	703
NUMBER OF SPECIES	13	17	15	14	11	7	5	8
DRY WEIGHT (MG/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

425619109483501 FREMONT LAKE SITE 1 (LAT 42 59 19 LONG 109 48 35)--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

ZOOPLANKTON ANALYSES

JUNE 12, 1984

TAXA	DEPTH						
	0-10M	0-20M	0-30M	0-40M	0-80M	0-120M	0-150M
PROTOZOA							
CERATIUM HIRUNDINELLA	--	13	--	--	--	--	--
DIFFLUGIA SP.	27	27	13	13	13	--	--
ROTATORIA							
KELLICOTTIA LONGISPINA	--	--	--	13	--	--	--
KERATELLA COCHLEARIS	120	67	53	187	160	200	120
POLYARTHRA SP.	--	--	--	--	27	--	--
CRUSTACEA							
CLADOCERA							
DAPHNIA CATAWBA	--	--	--	--	27	13	27
DAPHNIA ROSEA	440	493	653	600	680	107	546
LEPTODORA KINDTII	40	27	27	13	40	13	27
COPEPODA							
CYCLOPS BICUSPIDATUS THOMASI	40	40	13	--	13	40	13
DIAPTOMUS ASHLANDI	93	107	160	80	53	107	27
NAUPLII	360	440	573	613	360	133	93
TOTAL	1120	1214	1492	1519	1373	613	853
NUMBER OF SPECIES	6	7	6	6	8	6	6
DRY WEIGHT (MG/SAMPLE)	7.7	9.0	9.4	10.4	6.2	3.8	15.9

AUGUST 17, 1984

TAXA	DEPTH					
	0-10M	0-20M	0-30M	0-40M	0-80M	0-170M
ROTATORIA						
KELLICOTTIA LONGISPINA	--	--	--	--	95	--
KERATELLA COCHLEARIS	49	--	--	--	--	--
CRUSTACEA						
CLADOCERA						
CERIODAPHNIA RETICULATA	294	768	1080	1100	1140	1200
DAPHNIA ROSEA	6762	16608	13608	14700	9880	12000
LEPTODORA KINDTII	98	96	216	--	95	100
COPEPODA						
CYCLOPS BICUSPIDATUS THOMASI	98	96	108	300	190	--
DIAPTOMUS ASHLANDI	--	96	216	300	180	100
NAUPLII	49	--	--	--	95	--
TOTAL	7350	17664	15228	16400	11685	13400
NUMBER OF SPECIES	5	5	5	4	6	4
DRY WEIGHT (MG/SAMPLE)	95.8	268.9	259.6	207.9	173.0	187.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

425423109501301 PINE CREEK AT OUTLET FROM FREMONT LAKE, NEAR PINEDALE, WY (LAT 42 54 23 LONG 109 50 13)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUN , 1984 09...	1900	21	7	2.5	.30	.70	.1	.40	12	<1	1.8
AUG 19...	1400	20	--	<.02	.30	.80	--	.50	11	<1	1.4

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN , 1984 09...	.50	<.10	--	1.4	7	13	.00	--	5	4
AUG 19...	.36	<.03	<.01	1.3	6	--	.00	<.010	8	<1

ION CHROMOTOGRAPHY ANALYSIS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BROMIDE DISSOLV (UG/L)	CHLO-RIDE DISSOLV (UG/L)	FLUO-RIDE DISSOLV (UG/L)	NITRO-GEN NITRATE DISSOLV (UG/L)	PHOS-PHORUS, ORTHO, DIS-SOLVED (UG/L AS P)	SULFATE DISSOLV (UG/L)
JUN , 1984 09...	1900	--	--	--	--	--	1770
AUG 19...	1400	<10.0	360	30.0	<10.0	<10.0	1430

425200109520301 PINE CREEK AT STATE HIGHWAY 187, IN PINEDALE, WY (LAT 42 52 00 LONG 109 52 03)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
FEB , 1984 24...	0900	43	13	4.4	.60	1.7	.2	.80	20	<1	3.1

DATE	SULFATE DISSOLV (UG/L)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB , 1984 24...	3060	<.20	<.10	2.5	24	.03	.30	<.005	<.002	8	1

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

424058110042501 MUDDY CREEK NEAR BIG PINEY, WY (LAT 42 40 58 LONG 110 04 25)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR , 1984												
04...	0945	780	8.8	240	59	23	83	2	2.5	304	100	19

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
APR , 1984											
04...	.30	7.2	480	.65	<.10	<.10	.070	.70	.160	80	36

423355110055901 MEADOW CANYON CREEK AT MARBLETON, WY (LAT 42 33 55 LONG 110 05 59)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR , 1984												
04...	1030	760	8.8	370	59	53	78	2	6.7	417	120	17

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
APR , 1984											
04...	.40	17	600	.82	<.10	<.10	.050	.80	.070	160	50

423226110063201 NORTH PINEY CREEK AT BIG PINEY, WY (LAT 42 32 26 LONG 110 06 32)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR , 1984												
03...	1045	860	8.8	350	71	42	77	2	3.0	339	170	18

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
APR , 1984											
03...	.20	10	590	.81	<.10	<.10	.030	.20	.080	240	44

423140110063201 MIDDLE PINEY CREEK AT BIG PINEY, WY (LAT 42 31 40 LONG 110 06 32)

DATE	TIME	SPECIFIC CONDUCTANCE LAB (UMHOS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984											
04...	1115	585	320	76	31	8.0	.2	2.2	266	69	4.5

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
04...	.20	8.3	360	.49	<.10	<.10	.090	.40	.030	30	19

423152110062401 SOUTH PINEY CREEK NEAR BIG PINEY, WY (LAT 42 31 52 LONG 110 06 24)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984												
03...	1600	550	8.9	290	68	28	11	.3	1.5	248	63	4.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
03...	.20	7.7	330	.45	<.10	<.10	.010	.30	.040	100	45

422944110061501 TARTER GULCH NEAR BIG PINEY, WY (LAT 42 29 44 LONG 110 06 15)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984												
03...	1515	900	8.8	250	39	36	120	3	6.5	343	110	47

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
03...	.60	13	580	.79	<.10	.49	.050	2.0	.190	330	150

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

422506110063601 DRY PINEY CREEK NEAR BIG PINEY, WY (LAT 42 25 06 LONG 110 06 36)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984												
03...	1430	950	8.8	70	14	8.5	180	10	3.7	162	250	35

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
03...	.30	4.9	590	.81	<.10	<.10	.040	1.0	3.30	60	160

421339110112901 LA BARGE CREEK NEAR LA BARGE, WY (LAT 42 13 39 LONG 110 11 29)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984												
03...	1345	500	8.6	260	67	22	8.7	.2	1.3	188	99	4.4

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
03...	.30	7.8	320	.44	<.10	<.10	.020	<1.0	.040	20	7

420508110092701 FONTENELLE CREEK NEAR FONTENELLE, WY (LAT 42 05 08 LONG 110 09 27)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984												
03...	1300	550	8.2	250	66	21	17	.5	2.0	199	73	11

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
03...	.20	8.3	320	.43	<.10	<.10	.040	<1.0	.100	20	19

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

GREEN RIVER BASIN--Continued

415905110111201 SLATE CREEK NEAR FONTENELLE, WY (LAT 41 59 05 LONG 110 11 12)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
APR , 1984												
03...	1200	2250	8.3	810	160	100	290	5	4.7	328	940	140

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)
APR , 1984											
03...	.40	17	1800	2.5	<.10	<.10	.070	<1.0	.120	250	80

BEAR RIVER BASIN

410624111011201 THIEF CREEK AT MOUTH, NEAR MILLIS, WY (LAT 41 06 24 LONG 111 01 12)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
MAY , 1984											
16...	1430	32	80	11.6	90	330	85	28	29	.7	2.9
25...	1100	17	860	10.0	21	390	100	34	37	.8	2.9

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAY , 1984										
16...	230	21	98	.10	7.5	410	.56	35	.10	.030
25...	270	26	120	.00	7.3	490	.67	22	.00	.040

410634111021101 CHICKEN CREEK AT MOUTH, NEAR MILLIS, WY (LAT 41 06 34 LONG 111 02 11)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
MAY , 1984											
16...	1515	4.5	800	11.5	6.5	380	85	41	30	.7	2.0
25...	1230	3.1	840	--	3.5	420	94	45	35	.8	1.8

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAY , 1984										
16...	270	41	82	.10	6.2	450	.61	--	.30	.010
25...	300	46	94	.40	7.7	500	.69	4.2	.70	.000

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BEAR RIVER BASIN--Continued

410716111034901 SPRING CREEK ABOVE BARKER RESERVOIR, NEAR MILLIS, WY (LAT 41 07 16 LONG 111 03 49)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
MAY , 1984											
25...	1400	8.3	575	12.0	9.0	290	81	21	21	.6	2.0

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAY , 1984										
25...	230	26	46	.00	12	350	.47	7.8	.00	.030

GOSHEN COUNTY

421216104332301. Local number, 26N 064W 28bbb01.
LOCATION.--Lat 42°12'16", long 104°33'23", in NW¼NW¼NW¼ sec.28, T.26 N., R.64 W., Hydrologic Unit 10180009.
Owner: National Park Service.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 18 in, depth 29 ft, cased to 29 ft.
DATUM.--Altitude of land-surface datum is 4,245.9 ft. Measuring point: Top of casing, 0.28 ft above land-surface datum.
PERIOD OF RECORD.--July 1948 to Feburary 1984 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.72 ft below land-surface datum, May 15, 1973; lowest, 17.80 ft below land-surface datum, Oct. 16, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
OCT 26	16.84
NOV 23	16.46
DEC 23	16.50

421205104333001. Local number, 26N 064W 29ada01.
LOCATION.--Lat 42°12'05", long 104°33'30", in NE¼SE¼NE¼ sec.29, T.26 N., R.64 W., Hydrologic Unit 10180011.
Owner: National Park Service.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in, depth 43 ft, cribbed with rock.
DATUM.--Altitude of land-surface datum is 4,248.8 ft. Measuring point: Top of platform, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--September 1942 to February 1943, August 1946 to February 1984 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.40 ft below land-surface datum, May 17, 1971; lowest, 19.17 ft below land-surface datum, Feb. 20, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	18.42	JAN 24	18.08
NOV 23	18.16		
DEC 23	18.19		

LARAMIE COUNTY

411238104070801. Local number, 14N 060W 05bcb01.
LOCATION.--Lat 41°12'38", long 104°07'08", in NW¼SW¼NW¼ sec.5, T.14 N., R.60 W., Hydrologic Unit 10190015.
Owner: C. C. Gross.
AQUIFER.--Siltstone of Brule Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 18 in, reported depth 100 ft, cased.
DATUM.--Altitude of land-surface datum is about 5,082 ft. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.40 ft below land-surface datum, July 9, 10, 1967; lowest, 56.62 ft below land-surface datum, July 30, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.81	33.23	31.78				29.90	29.65	31.13	35.39	33.94	38.10
10	33.89	32.92				30.13	29.82	29.61	30.46	34.44	33.89	34.24
15	34.56	32.64				30.08	29.90	29.85	30.15	37.90	35.56	33.84
20	33.80	32.25				30.04	29.75	29.67	29.97	46.82	34.54	33.29
25	33.74	32.05				29.97	29.66	29.88	30.57	35.88	33.70	33.03
EOM	33.61	31.92				29.96	29.78	30.57	44.26	35.41	34.90	32.58

WTR YEAR 1984 MAX 47.92 JUL 23 MIN 29.61 MAY 10

LARAMIE COUNTY--Continued

411034104554001. Local number, 14N 067W 18ddc01.

LOCATION.--Lat 41°10'34", long 104°55'40", in SW¼SE¼SE¼ sec.18, T.14 N., R.67 W., Hydrologic Unit 10190009. Owner: City of Cheyenne.

AQUIFER.--Gravel of Brule Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in, depth 229 ft, cased.

DATUM.--Altitude of land-surface datum is about 6,248 ft. Measuring point: Top of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.48 ft below land-surface datum, Sept. 26, Oct. 28, 1957; lowest, 49.18 ft below land-surface datum, Aug. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.45	21.72	19.54	19.98	18.84	19.05	19.10	18.57	20.51	20.81	20.28	20.20
10	23.17	21.32	19.17	19.32	18.63	19.06	18.88	18.52	19.97	20.73	20.66	20.02
15	23.60	22.47	19.10	18.96	18.87	19.08	19.04	18.45	20.21	21.36	20.45	20.81
20	23.40	22.35	19.66	18.81	18.85	19.41	18.80	19.48	19.20	21.13	19.61	21.07
25	22.96	20.79	19.36	18.86	18.95	19.52	18.55	19.90	20.26	20.28	19.26	21.76
EOM	22.53	20.15	19.24	18.82	19.04	19.61	18.66	20.13	20.58	21.37	19.45	21.48

WTR YEAR 1984 MAX 18.01 JAN 22 MIN 23.80 JAN 16

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BIGHORN COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	TEMPER-ATURE (DEG C)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
441351107434701	49N091W12DBC WORLAND NO.	331MDSN	GW	84-07-24	1000	--	--	.25
441459107342200	49N 089W 05BDA •	331MDSN	GW	84-07-23	1830	2210	17.5	.44
441459107355800	49N 089W 06BCB	331MDSN	GW	84-07-23	1530	2890	--	.73
441509107450901	49N091W26AD01 WORLAND NO	331MDSN	GW	84-07-24	1030	--	--	.33
441526107384900	50N090W34DCA00 MERCER	331MDSN	GW	84-07-23	1700	2980	21.5	.17
441716107375400	50N090W23CAD00 HAMILTON	331MDSN	GW	84-07-23	1730	2500	16.0	.22
443151107514701	53N092W36ADA01 GREYBULL	331MDSN	GW	84-07-23	--	3250	13.0	4.2
443201107454800	53N091W35AA01 SHELL VALL	331MDSN	GW	84-07-23	--	3500	10.0	1.2
445735108251801	58N096W34CDA01 MADISON #	331MDSN	GW	84-07-23	--	2300	16.0	.79
445814108365501	58N097W31BAC01 FRANNIE	331MDSN	GW	84-07-23	--	4500	35.0	51

CAMPBELL COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)
440113105205401	47N071W26DBD	125FRUN	GW	84-06-28	1600	307	12.30	2580	7.5
440133105211801	47N071W26BDB	125FRUN	GW	84-06-28	1130	188	140.90	1480	7.2
440136105204401	47N071W26ADB	125FRUN	GW	84-06-27	1400	110	85.60	6000	6.8
441237106090900	ALVM WELL (02) BY POWDER	111ALVM	GW	83-11-01	1500	31.00	--	1580	7.4

STATION NUMBER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
440113105205401	84-06-28	8.0	5.2	389	.000	250	110	190	3	8.2	--
440133105211801	84-06-28	12.5	.3	938	.000	48	18	250	8	9.2	--
440136105204401	84-06-27	9.0	.8	596	.000	580	310	680	6	33	--
441237106090900	83-11-01	18.0	--	--	--	220	48	88	1	11	72

STATION NUMBER	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)
440113105205401	84-06-28	1200	1.7	.30	2000	<.010	.51	.010	.40	--	--
440133105211801	84-06-28	2.6	13	1.0	810	<.010	<.10	1.50	1.9	--	--
440136105204401	84-06-27	3300	130	.30	5400	<.010	<.10	.970	1.4	--	--
441237106090900	83-11-01	730	65	.20	1200	--	<.10	--	--	.150	.46

STATION NUMBER	DATE OF SAMPLE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
440113105205401	84-06-28	<.010	.010	--	100	33	18	1	7	2800	19
440133105211801	84-06-28	.010	.010	20	90	50	20	<1	<1	900	3.3
440136105204401	84-06-27	.010	.010	--	150	220	200	4	<1	9100	3.9
441237106090900	83-11-01	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CARBON COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)
415442106474501	22N083W06ABA	125FRRS	GW	84-06-25	1530	71.00	62.00	5400	6.7
415536106480101	23N083W31BAA	125FRRS	GW	84-06-26	1130	140	67.00	3780	7.3

STATION NUMBER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
415442106474501	84-06-25	11.5	.4	904	.000	480	260	170	2	25	1700
415536106480101	84-06-26	9.0	.6	949	.000	150	150	540	8	9.8	1400

STATION NUMBER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
415442106474501	84-06-25	66	.20	9.7	3200	<.010	<.10	5.00	6.0	.050	.010
415536106480101	84-06-26	24	.40	13	2800	<.010	<.10	4.10	5.5	.010	.010

STATION NUMBER	DATE OF SAMPLE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)
415442106474501	84-06-25	20	100	200	4800	2	<1	6500
415536106480101	84-06-26	20	120	640	110	<1	<1	10000

HOT SPRINGS COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
433946108113701	BIG SPRING AT HOT SPRING	--	SP	84-05-31	1850	2760	--	320	68
		--	SP	84-07-22	--	--	55.5	--	--

STATION NUMBER	DATE OF SAMPLE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
433946108113701	84-05-31	230	3	40	560	640	290	3.5	36	2000
	84-07-22	--	--	--	--	--	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
433946108113701	84-05-31	.00	.010	--
	84-07-22	--	--	16

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

JOHNSON COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)
434141106173700	WELL AT TURIC RANCH 43 7	--	GW	83-10-12	0930	12.00	6000	7.0	14.0

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
434141106173700	83-10-12	670	240	980	9	9.6	479	3500	530	.40	16

STATION NUMBER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)
434141106173700	83-10-12	6200	<.10	.020	.06

LARAMIE COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	FLOW RATE (GPM)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	CALCIUM DIS-SOLVED (MG/L AS CA)
410927104530001	14N067W17 PETERSON WELL	121OGLL	GW	84-05-07	1600	--	5.0	255	38
411042104383601	14N65W15DBD01 ALLEN WELL	121OGLL	GW	84-07-16	1830	300	10	340	43

STATION NUMBER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
410927104530001	84-05-07	6.5	8.0	.3	2.6	130	6.7	2.2	.40
411042104383601	84-07-16	10	16	.6	4.2	140	21	5.6	.80

STATION NUMBER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
410927104530001	84-05-07	20	1.2	.070
411042104383601	84-07-16	40	2.8	.000

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PARK COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
443431110215001	WELL FB 9 YNP	111LCTN	GW	84-08-24	1400	51.00	255	10.0	9.3
443431110221601	FB15 YNP	111LCTN	GW	84-08-26	1345	7.00	70	10.5	1.0
443432110214001	WELL FB 1 YNP	111LCTN	GW	84-08-14	1415	48.00	310	5.0	15
443435110214401	WELL FB12 YNP	111LCTN	GW	84-08-24	1325	49.00	275	8.0	16
443435110220401	WELL FB13 YNP	111LCTN	GW	84-08-26	1310	6.00	275	10.0	14
443436110214301	WELL FB11 YNP	111LCTN	GW	84-08-24	1300	49.00	280	8.5	17
443437110214601	WELL FB 2 YNP	111LCTN	GW	84-08-23	1450	51.00	200	6.0	12
443439110222301	FB17 YNP	111LCTN	GW	84-08-23	1255	8.00	95	10.5	1.3
443440110215201	WELL FB 3 YNP	--	GW	84-08-23	1420	51.00	215	9.0	14
443441110213801	WELL FB 8 YNP	111LCTN	GW	84-08-14	1445	48.00	170	10.0	3.3
443443110215001	WELL FB 4 YNP	111LCTN	GW	84-08-23	1355	49.00	220	8.0	16
443444110221201	WELL FB14 YNP	111LCTN	GW	84-08-22	1345	14.00	85	6.0	1.4
443444110221202	FB14A YNP	111LCTN	GW	84-08-22	1420	39.00	85	6.5	.90
443448110213101	WELL FB 7 YNP	111LCTN	GW	84-08-23	1330	47.00	65	6.0	.90
443452110220401	WELL FB10 YNP	111LCTN	GW	84-08-22	1450	40.00	90	7.5	3.3

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
443431110215001	84-08-24	5.8
443431110221601	84-08-26	<.10
443432110214001	84-08-14	8.0
443435110214401	84-08-24	5.6
443435110220401	84-08-26	.53
443436110214301	84-08-24	6.1
443437110214601	84-08-23	5.5
443439110222301	84-08-23	<.10
443440110215201	84-08-23	2.1
443441110213801	84-08-14	1.1
443443110215001	84-08-23	4.3
443444110221201	84-08-22	.57
443444110221202	84-08-22	.16
443448110213101	84-08-23	.12
443452110220401	84-08-22	.70

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
432820109022301	52N101W19AAA01	217CLVL	GW	84-09-21	1130	230	2280	11.0	.15
435716108401201	46N098W18CB01 FRONT UNIT	331MDSN	GW	84-07-22	--	--	--	--	36
442200108543000	COMPOSITE TO TREATER	331MDSN	GW	84-07-19	--	--	--	--	15
444847108361501	56N098W24CD01 GARLAND OI	331MDSN	GW	84-07-23	--	--	--	--	440
445430108500501	57N099W20BD01 MDSN UNIT	331MDSN	GW	84-07-18	--	--	--	10.0	46
445857108375901	58N098W25BDA UN #6 FRANN	331MDSN	GW	84-07-18	--	--	--	--	25

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
432820109022301	52N101W19AAA01	217CLVL	GW	84-09-21	1130	<37	<.4	<20	<.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

PARK COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
432820109022301	84-09-21	<17	<.4	.15	.7

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	SITE	DATE OF SAMPLE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
432820109022301	52N101W19AAA01	217CLVL	GW	84-09-21	1130	<1	<1	<1	<10

STATION NUMBER	DATE OF SAMPLE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)
432820109022301	84-09-21	<10	<1	<1	2	<1	260	590	<1	2	10

STATION NUMBER	DATE OF SAMPLE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
432820109022301	84-09-21	20	<.1	<.1	<1	<1	10	60

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	SITE	DATE OF SAMPLE	TIME	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
444217108390900	55N098W34BCB01	125FRUN	GW	84-08-17	--	<.01	<.01	<.01	<.01

STATION NUMBER	DATE OF SAMPLE	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)
444217108390900	84-08-17	<.010	.020

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SHERIDAN COUNTY

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)
444153106063300	WELL AT MALLEY RANCH 55	--	GW	83-10-14	0930	25.00	2750	7.2	9.5

STATION NUMBER	DATE OF SAMPLE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
444153106063300	83-10-14	920	230	85	460	7	7.4	367	1100	270	.40

STATION NUMBER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
444153106063300	83-10-14	12	2400	3.2	.51	.010

TETON COUNTY

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
442315110321201	WELL GV 8 YNP	111LCTN	GW	84-08-09	1500	97.00	85	9.0	1.8
442316110320901	WELL GV 9 YNP	111LCTN	GW	84-08-09	1530	57.00	130	7.0	3.7
442317110321701	GV11 YNP	111LCTN	GW	84-08-07	1400	104	370	11.0	25
442318110320301	WELL GV10 YNP	111LCTN	GW	84-08-10	1440	53.00	130	7.5	.70
442318110320302	WELL GV10AYNP	111LCTN	GW	84-08-10	1515	20.00	150	7.5	6.1
442319110320401	WELL GV 5 YNP	111LCTN	GW	84-08-10	1415	54.00	150	7.0	1.2
442320110320801	WELL GV 6 YNP	111LCTN	GW	84-08-08	1335	43.00	100	7.5	1.3
442320110323501	GV13 YNP	111LCTN	GW	84-08-07	1450	89.00	90	14.0	1.0
442321110391901	WELL GV 4 YNP	111LCTN	GW	84-08-08	1310	58.00	120	8.5	3.9
442322110321001	WELL GV 3 YNP	111LCTN	GW	84-08-08	1400	50.00	<50	8.0	.60
442322110321002	WELL GV 3AYNP	111LCTN	GW	84-08-08	1425	38.00	<50	7.0	.70
442323110321101	WELL GV 2 YNP	111LCTN	GW	84-08-08	1450	50.00	250	8.0	11
442323110322801	GV12 YNP	111LCTN	GW	84-08-07	1420	72.00	85	10.0	1.6
442324110315701	WELL GV 1 YNP	111LCTN	GW	84-08-10	1345	16.00	270	11.0	1.1
442330110323701	WELL GV14 YNP	111LCTN	GW	84-08-17	0910	12.00	165	5.0	1.1
442717110504601	WELL OF 1 YNP	112GLCL	GW	84-08-15	1330	29.00	110	15.0	3.0
442720110504101	WELL OF 2 YNP	112GLCL	GW	84-08-15	1300	48.00	265	18.0	35
442721110504001	OF8 YNP	112GLCL	GW	84-08-15	1350	7.00	325	15.0	30
442722110504401	WELL OF 3 YNP	112GLCL	GW	84-08-13	1400	65.00	240	17.0	27
442723110504601	WELL OF 4 YNP	112GLCL	GW	84-08-13	1415	49.00	320	18.0	36
442723110505203	WELL OF 7BYNP	112GLCL	GW	84-08-15	1440	30.00	240	15.0	29
442724110504801	WELL OF 5 YNP	112GLCL	GW	84-08-13	1440	49.00	260	15.0	31
442725110504801	OF9 YNP	112GLCL	GW	84-08-15	1415	7.00	290	20.0	33
442726110505001	WELL OF 6 YNP	112GLCL	GW	84-08-15	1510	36.00	250	24.0	25
443835110521201	MJ10 YNP	111ALVM	GW	84-08-20	1305	46.00	650	27.0	26
443839110520801	MJ9 YNP	111ALVM	GW	84-08-20	1320	39.00	500	21.5	20
443842110522101	WELL MJ 6 YNP	111ALVM	GW	84-08-20	1420	35.00	190	14.0	1.9
443842110522201	WELL MJ 5 YNP	111ALVM	GW	84-08-20	1445	40.00	190	12.0	2.2
443843110522001	WELL MJ 7 YNP	111ALVM	GW	84-08-20	1355	50.00	205	11.0	8.4
443843110522101	WELL MJ 4 YNP	111ALVM	GW	84-08-17	1440	40.00	145	12.5	2.2
443843110522301	MJ8 YNP	111ALVM	GW	84-08-17	1455	38.00	160	14.0	2.0
443844110521901	WELL MJ 3 YNP	111ALVM	GW	84-08-17	1415	60.00	185	12.5	11
443844110522501	WELL MJ 1 YNP	111ALVM	GW	84-08-17	1400	35.00	190	15.5	2.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

TETON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
442315110321201	84-08-09	.51
442316110320901	84-08-09	5.3
442317110321701	84-08-07	8.5
442318110320301	84-08-10	<.10
442318110320302	84-08-10	6.5
442319110320401	84-08-10	<.10
442320110320801	84-08-08	.18
442320110323501	84-08-07	<.10
442321110391901	84-08-08	.47
442322110321001	84-08-08	.23
442322110321002	84-08-08	.16
442323110321101	84-08-08	9.0
442323110322801	84-08-07	<.10
442324110315701	84-08-10	<.10
442330110323701	84-08-27	.10
442717110504601	84-08-15	.11
442720110504101	84-08-15	9.0
442721110504001	84-08-15	17
442722110504401	84-08-13	1.3
442723110504601	84-08-13	.43
442723110505203	84-08-15	.81
442724110504801	84-08-13	13
442725110504801	84-08-15	2.7
442726110505001	84-08-15	1.5
443835110521201	84-08-20	.38
443839110520801	84-08-20	.50
443842110522101	84-08-20	.13
443842110522201	84-08-20	.11
443843110522001	84-08-20	3.3
443843110522101	84-08-17	.31
443843110522301	84-08-17	.11
443844110521901	84-08-17	7.0
443844110522501	84-08-17	.11

WASHAKIE COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)
434635107194601	44N087W17DAD LEWTON	331MDSN	GW	84-07-23	1100	--	469	--	.86
435811107175300	46N 087W 10ACB	331MDSN	GW	84-07-23	1200	1410	--	15.0	.64
440213107264300	47N 088W 16CCA	331MDSN	GW	84-07-23	1000	749	--	--	1.1
440217107270400	47N088W17DAD00 TEN SLEEP	331MDSN	GW	84-07-23	0930	--	--	--	1.1

Geologic Unit (aquifer)

111ALVM	Holocene Alluvium
111LCTN	Locustrine Deposits
112GLCL	Glacial Deposits
121OGLL	Ogallala Formation
125FRRS	Ferris Formation
125FRUN	Fort Union Formation
217CLVL	Cloverly Formation
331MDSN	Madison Limestone

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INDEX

Page

- Accuracy of field data and computed results.. 19-20
- Acme, Goose Creek near 136-137
  - Prairie Dog Creek near 141
- Acre-foot, definition of 10
- Adenosine triphosphate, definition of 10
- Afton, Swift Creek near 425
- Alcova, Alcova Reservoir at 235
  - Bates Creek near 246
  - Horse Creek at Highway 220, near 233
  - North Platte River at 236-239
  - Pathfinder Reservoir near 234
  - Stinking Creek above Lawn Creek, near 241-245
  - Sweetwater River near 231-232
- Alcova Reservoir at Alcova 234
- Algae, blue-green, definition of 13
- Algae, definition of 10
- Algae, green, definition of 13
- Algal growth potential, definition of 10
- Alpine, Greys River above reservoir, near 423
  - Snake River above reservoir, near 421-422
- Anchor, South Fork Owl Creek near 63-64
- Anchor Reservoir 188-189
  - South Fork Owl Creek below 65-66
- Aquifer, definition of 10
- Arapahoe, Little Wind River above 46-48
  - Popo Agie River near 51-53
- Arlington, Rock Creek above King Canyon Canal, near 221
- Artesian, definition of 10
- Artificial substrate, definition of 15
- Arvada, Clear Creek near 184
  - Crazy Woman Creek at upper station, near 172
  - Powder River at 173-176
- Ash mass, definition of 10

- Bacteria, definition of 10
- Baggs, Little Snake River below 378-379
- Barnum, Beaver Creek above White Panther ditch, near 148
  - Beaver Creek below Bayer Creek, near 147
  - Middle Fork Powder River near 146
- Basin, Bighorn River at 80-81
  - Greybull River near 84
- Bates Creek, near Alcova 246
  - near Freeland 240
- Bear River, above reservoir, near Woodruff, UT 389-391
  - at Border 399-401
  - at Evanston 386
  - below Pixley Dam, near Cokeville 395
  - below reservoir, near Woodruff, UT 393
  - below Smiths Fork, near Cokeville 398
  - East Fork, near Evanston 380
  - near Randolph, UT 394
  - near Utah-Wyoming State line 383
  - West Fork, at Whitney Dam, near Oakley, UT. 381
    - below Deer Creek, near Evanston 382
- Bear River basin, analyses of samples collected at miscellaneous sites in 453-454
  - gaging-station records in 380-402
- Bear Springs Creek near Alcova 429
- Beaver Creek (tributary to Cheyenne River) near Newcastle 192-193
- Beaver Creek (tributary to Middle Fork Powder River), above White Panther ditch, near Barnum 148
  - below Bayer Creek, near Barnum 147
- Bed material, definition of 10
- Belfry, MT, Clarks Fork Yellowstone River near 28-31
- Belle Fourche River, at Devils Tower 200
  - at Wyoming-South Dakota State line 202-203
  - below Hulett 201
  - below Keyhole Reservoir 198-199
  - below Moorcroft 196
  - tributary No. 2 near Hulett 429
- Big Goose Creek, East Fork, near Big Horn 128
  - near Sheridan 130
  - West Fork, near Big Horn 129
- Big Horn, East Fork Big Goose Creek near 128
  - Little Goose Creek in canyon, near 131

Page

- Big Horn, West Fork Big Goose Creek near 129
- Big Piney, Green River near 317
  - New Fork River near 320-321
  - South Cottonwood Creek near 316
- Big Sandy, Big Sandy River at Leckie Ranch, near 330
  - East Fork River near 319
- Big Sandy Reservoir, Big Sandy River below 332
- Big Sandy River, at Farson 333
  - at Gasson Bridge, near Eden 339-342
  - at Leckie Ranch, near Big Sandy 330
  - below Farson 335-338
  - below Big Sandy Reservoir 332
  - near Farson 331
- Bighorn Lake near St. Xavier, MT 114
- Bighorn River, at Basin 80-81
  - at Kane 88-90
  - at Lucerne 67
  - at Worland 74
  - near St. Xavier, MT 115
- Bighorn River basin, analyses of samples collected at miscellaneous site in 434
- Biochemical oxygen demand, definition of 10
- Biomass, definition of 10
- Bitter Creek (tributary to Shoshone River), below sewage lagoon, near Powell 104
  - near Garland 105-106
- Bitter Creek (tributary to Green River) above Killpecker Creek, at Rock Springs 343
- Black Thunder Creek near Hampshire 190
- Blacks Fork, near Little America 360-363
  - near Lyman 356
  - near Millburne 354
  - near Robertson 353
  - tributary No. 3 near Green River 431
- Blue-green algae, definition of 13
- Bondurant, Little Granite Creek at mouth, near 410-420
- Border, Bear River at 399-401
  - Smiths Fork near 396
- Bosler, Laramie River near 294
- Bottom material, definition of 11
  - Recoverable from bottom material, definition of 11
  - Total in bottom material, definition of 11
- Box Elder Creek, at Boxelder 264
  - at canyon mouth, near Glenrock 432
  - at Converse County Park, near Careyhurst 266
  - at Converse County Park boundary, near Careyhurst 432
  - below Interstate 25, near Careyhurst 271
  - near Boxelder 265
  - near canyon mouth, near Glenrock 432
- Boxelder, Box Elder Creek at 264
  - Box Elder Creek near 265
- Boysen Reservoir 188-189
  - Wind River below 59-62
- Buffalo, Clear Creek below Rock Creek, near 179
  - Clear Creek near 177
  - Dead Horse Creek near 169
  - North Fork Crazy Woman Creek, below Pole Creek, near 170
    - near 171
  - Rock Creek near 178
- Buffalo Bill Reservoir 188-189
  - Shoshone River, below 100-101
    - South Fork, above 96-98
- Buffalo Fork above Lava Creek, near Moran 405
- Bull Creek near Buffalo 429
- Bull Lake 188-189
  - Bull Lake Creek above 38-39
- Bull Lake Creek, above Bull Lake 38-39
  - near Lenore 40
- Burgess Junction, Dry Fork below Lick Creek, near 117
  - Little Bighorn River below Dayton Gulch, near 116

- Cache Creek near Jackson 406-408
- Careyhurst, Box Elder Creek at Converse County Park, near 266

Page
Careyhurst, Box Elder Creek below interstate 25, near 271
  Cottonwood Creek near 270
  Little Box Elder Creek at Little Box Elder Cave, near 268
  Little Box Elder Creek near 267
  Little Box Elder Spring near 269
Casper, Casper Creek at 255
  North Platte River, at 256-257
    below 258-259
Casper Creek at Casper 255
Cells per volume, definition of 11
Cfs-day, definition of 11
Chapman Canal at State line, near Evanston 388
Chemical oxygen demand, definition of 11
Chemical quality of streamflow 9
Cherry Creek drain near Torrington 305
Cheyenne, Crow Creek near 311
Cheyenne River, at Edgemont, SD 194
  at Riverview 191
Cheyenne River basin, analyses of samples collected at miscellaneous site in 435
  crest-stage partial-record stations in 429
  gaging-station records in 190-205
Chicken Creek at mouth, near Millis 453
Chlorophyll, definition of 11
Chugwater, Chugwater Creek at 301
  Chugwater Creek at Platte-Laramie County line, near 300
Chugwater Creek, at Chugwater 301
  at Platte-Laramie County line, near Chugwater 300
  near Uva 301
Clarks Fork Yellowstone River near Belfry, MT 28-31
Clear Creek, at Ucross 180
  below Rock Creek, near Buffalo 179
  near Arvada 184
  near Buffalo 177
Coal Creek near Goose Egg 430
Coal Draw, near Buffalo 429
  near Midwest 429
Cody, Diamond Creek near mouth, near 99
  Shoshone River above Dry Creek, near 102
Cokeville, Bear River below Pixley Dam, near 395
  Bear River below Smiths Fork, near 398
  Smiths Fork at 397
Coliform bacteria, fecal, definition of 10
  fecal streptococcal, definition of 10
  total, definition of 10
Collection and computation of surface-water data 17
Collection and examination of water-quality data 20
Collection of ground-water level data 21
Colorado River basin, analyses of samples collected at miscellaneous sites in 435-453
  crest-stage partial-record stations in 430-431
  gaging-station records in 312-379
Colter, East Fork Nowater Creek near 68
Color unit, definition of 11
Concentration, mean, definition of 14
Contents, definition of 11
Control, definition of 11
Control structure, definition of 11
Cooperation 4
Corwin Springs, MT, Yellowstone River at 27
Cottonwood Creek (tributary to Green River) near Daniel 435
Cottonwood Creek (tributary to Little Box Elder Creek) near Careyhurst 270
Cow Creek tributary near Weston 429
Crazy Woman Creek, at upper station, near Arvada 172
  North Fork, below Pole Creek, near Buffalo 170
    near Buffalo 171
Crest-stage partial-record stations, discharge at 428-431
Crow Creek (tributary to South Platte River), at F. E. Warren AFB 311
  near Cheyenne 311
Crow Creek (tributary to Wind River) near Tipperary 36-37
Crowheart, Wind River near 41
Cubic feet per second per square mile, definition of 11
Cubic foot per second, definition of 11

Daniel, Horse Creek near 315
  Green River at Warren Bridge, near 312
Dayton, East Pass Creek near 123
  Highline ditch, diversion by, near 126
  Tongue River near 126
Dead Horse Creek near Buffalo 169
Deaver, Sage Creek at Sidon Canal, near 111-112
Decker, MT, Squirrel Creek near 138-140
  Tongue River at State line, near 142-145
Deer Creek below Millar wasteway, at Glenrock 260-261
Definition of terms 10-16
Delaney Draw near Red Desert 430
Devils Tower, Belle Fourche River at 200
Diamond Creek near mouth, near Cody 99
Diamondville, Hams Fork near 358
Diatoms, definition of 13
Discharge, at crest-stage partial-record stations 428-431
  at miscellaneous sites 432
  definition of 11
  instantaneous, definition of 11
  mean, definition of 11
Dissolved, definition of 11
Diversity index, definition of 11
Dixon, Little Snake River near 375-376
  Willow Creek near 377
Donkey Creek, near Moorcroft 195
  tributary above reservoir, near Gillette 429
Douglas, La Prele Creek near 272
Downstream order and station number 16
Drainage area, definition of 12
Drainage basin, definition of 12
Dry Cheyenne Creek, West Fork, at upper station, near Riverton 428
Dry Fork below Lick Creek, near Burgess Junction 117
Dry mass, definition of 10
Dry Piney Creek near Big Piney 452
Dubois, East Fork Wind River, near 34-35
  Wind River near 32-33

East Fork River near Big Sandy 319
East Otterson Wash near Green River 430
East Pass Creek near Dayton 123
Eden, Big Sandy River at Gasson Bridge, near 339-342
Edgemont, SD, Cheyenne River at 194
Elk Mountain, Pass Creek near 217
Elkhorn Creek, above Fuller Ranch, near Parkman 118
  near Parkman 432
Encampment, Encampment River above Hog Park Creek, near 211-213
  Encampment River at mouth, near 214-215
Encampment River, above Hog Park Creek, near Encampment 111-113
  at mouth, near Encampment 214-215
Etna, Salt River above reservoir, near 426-427
Evanston, Bear River at 386
  Chapman Canal at State line, near 388
  East Fork Bear River near 380
  Sulphur Creek, above reservoir, near 384
    below reservoir, near 385
  West Fork Bear River below Deer Creek, near 382
  Yellow Creek at mouth, near 387

F. E. Warren AFB, Crow Creek at 311
Farson, Big Sandy River at 333
  Big Sandy River below 335-338
  Big Sandy River near 331
  Little Sandy Creek at 334
Fecal coliform bacteria, definition of 10
Fecal streptococcal bacteria, definition of 10
Fifteenmile Creek near Worland 69-73
Filmore, Little Laramie River near 292
Firehole River near West Yellowstone, MT 23
Fivemile Creek near Shoshoni 57
Flaming Gorge Dam, UT, Flaming Gorge Reservoir at 366
Flaming Gorge Reservoir at Flaming Gorge Dam, UT 366
Floods 5
Fontenelle, Fontenelle Reservoir near 327
  Fontentelle Creek near Herschler Ranch, near 326
Fontenelle Creek, near Fontenelle 452
  near Herschler Ranch, near Fontenelle 326
Fontenelle Reservoir, Green River below 328-329
  near Fontenelle 327
Fort Laramie, Laramie River near 302-303
Fort Washakie, South Fork Little Wind River above Washakie Reservoir, near 44-45
Freeland, Bates Creek near 240

Page
Fremont Lake, Pine Creek above.............. 318
  Site 1.............. 444-448
  Site 2.............. 443
Frontier, Hams Fork below Pole Creek, near... 357

Gage height, definition of.............. 12
Gaging station, definition of.............. 12
Garland, Bitter Creek near.............. 105-106
  Shoshone River near.............. 103
  Whistle Creek near.............. 107-108
Geologic unit.............. 463
Gibbon River near West Yellowstone, MT....... 24
Glendo, Glendo Reservoir near.............. 279
Glendo Reservoir, near Glendo.............. 279
  North Platte River below.............. 280-281
Glenrock, Deer Creek below Millar wasteway, at.............. 260-261
  North Platte River near.............. 262-263
Goose Creek, below Sheridan.............. 133-135
  near Acme.............. 136-137
Goose Egg, North Platte River above Poison Spider Creek, near.............. 252-253
  North Platte River near.............. 247-251
Granger, Hams Fork near.............. 359
Great Salt Lake basin, gaging station records in.............. 380-402
Green algae, definition of.............. 13
Green River, Green River below.............. 351-352
  Green River near.............. 344-350
Green River, at Warren Bridge, near Daniel... 312
  below Fontenelle Reservoir.............. 328-329
  below Green River.............. 351-352
  near Big Piney.............. 317
  near Green River.............. 344-350
  near Greendale, UT.............. 367-391
  near La Barge.............. 324-325
Green River basin, analyses of samples collected at miscellaneous sites in.... 435-453
  crest-stage partial-record stations in..... 430-431
  gaging station records in.............. 312-379
Greendale, UT, Green River near.............. 367-371
Greybull, Shell Creek, at Porter Gulch, near. 87
  near.............. 87
Greybull River, at Meeteetse.............. 83
  near Basin.............. 84
Greys River above reservoir, near Alpine..... 423
Ground water, chemical analyses of, by county:
  Bighorn County.............. 457
  Campbell County.............. 457
  Carbon County.............. 458
  Hot Springs County.............. 458
  Johnson County.............. 459
  Laramie County.............. 459
  Park County.............. 460-461
  Sheridan County.............. 462
  Teton County.............. 462-463
  Washakie County.............. 463
Ground-water level records, explanation of... 21
Ground-water levels.............. 9
  by county:
  Goshen County.............. 455
  Laramie County.............. 455-465
Guernsey, Guernsey Reservoir near.............. 282
Guernsey Reservoir near Guernsey.............. 282
  North Platte River below.............. 283-284

Hampshire, Black Thunder Creek near.............. 190
Hams Fork, below Pole Creek, near Frontier... 357
  near Diamondville.............. 358
  near Granger.............. 359
Hanna, Medicine Bow River above Seminoe Reservoir, near.............. 226-227
Hardness, definition of.............. 12
Hazelton, North Fork Powder River below Bull Creek, near.............. 152
  North Fork Powder River near.............. 151
Henry, NE, Katzer drain near.............. 306
Henrys Fork near Manila, UT.............. 364-365
Highline ditch, diversion by, near Dayton.... 126
Horse Creek (tributary to Green River) near Daniel.............. 315
Horse Creek (tributary to North Platte River) at WyCross Ranch, near LaGrange........ 435
Horse Creek (tributary to Sweetwater River) at Highway 220, near Alcova.............. 233
Howell, Laramie River above.............. 289-290
Hulett, Belle Fourche River below.............. 201
Hyattville, Paint Rock Creek near mouth, below.............. 78

Page
Hydrologic bench-mark station, definition of. 17
Hydrologic conditions, summary of.............. 4-9
Hydrologic unit, definition of.............. 12

Instantaneous discharge, definition of....... 11
Introduction.............. 1
Inyan Kara Creek near Upton.............. 429
Iron Spring Creek, above Old Faithful Sewage Lag, Yellowstone National Park.. 433
  below Old Faithful Sewage Lag, Yellowstone National Park.............. 433

Jackson, Cache Creek near.............. 406-408
  Snake River below Flat Creek, near.......... 409

Kane, Bighorn River at.............. 88-90
  Shoshone River at.............. 113
Katzer drain near Henry, NE.............. 306
Kaycee, Middle Fork Powder River near........ 149-150
  Powder River near.............. 154
  South Fork Powder River near.............. 155-159
Kearny, Piney Creek at.............. 182
Keyhole Reservoir, near Moorcroft.............. 197
  Belle Fourche River below.............. 198-199
Killpecker Creek at Rock Springs.............. 343
Kirby Draw near Riverton.............. 428

La Barge, Green River near.............. 324-325
La Barge Creek, near La Barge.............. 452
  near Viola.............. 323
La Bonte, La Bonte Creek near.............. 275
  Wagonhound Creek near.............. 274
La Bonte Creek near La Bonte.............. 275
La Prele Creek, near Douglas.............. 272
  near Orpha.............. 273
Lakes and reservoirs:
  Alcova Reservoir at Alcova.............. 235
  Anchor Reservoir.............. 188-189
  Bighorn Lake near St. Xavier, MT.............. 114
  Boysen Reservoir.............. 188-189
  Buffalo Bill Reservoir.............. 188-189
  Bull Lake.............. 188-189
  Flaming Gorge Reservoir at Flaming Gorge Dam, UT.............. 366
  Fontenelle Reservoir near Fontenelle....... 327
  Glendo Reservoir near Glendo.............. 279
  Guernsey Reservoir near Guernsey.............. 282
  Keyhole Reservoir near Moorcroft.............. 197
  Pathfinder Reservoir near Alcova.............. 234
  Seminoe Reservoir near Leo.............. 228
  Woodruff Narrows Reservoir near Woodruff, UT.............. 392
Lander, Little Popo Agie River near.............. 50
  Popo Agie River at Hudson Siding, near..... 49
Laramie River and Pioneer Canal near Woods... 286-287
Laramie River, above Howell.............. 289-290
  at Two Rivers.............. 291
  near Bosler.............. 294
  near Fort Laramie.............. 302-303
  near Lookout.............. 295
Lawn Creek near Alcova.............. 430
Lenore, Bull Lake Creek near.............. 40
Leo, Seminoe Reservoir near.............. 228
Lingle, Rawhide Creek near.............. 304
Little America, Blacks Fork near.............. 360-363
Little Bighorn River, at State line, near Wyola, MT.............. 120
  below Dayton Gulch, near Burgess Junction.. 116
  West Fork, near Parkman.............. 119
    west of Parkman.............. 432
Little Box Elder Creek, at Little Box Elder Cave, near Careyhurst.............. 268
  near Careyhurst.............. 267
Little Box Elder Spring near Careyhurst...... 269
Little Goose Creek, at Sheridan.............. 132
  in canyon, near Big Horn.............. 131
Little Granite Creek at mouth, near Bondurant.............. 410-420
Little Laramie River, near Filmore.............. 292
  at Two Rivers.............. 293
Little Medicine Bow River, at Boles Spring, near Medicine Bow.............. 225
  near Medicine Bow.............. 222-224
Little Popo Agie River near Lander.............. 50
Little Powder River above Dry Creek, near Weston.............. 187
Little Sandy Creek at Farson.............. 334
Little Snake River, below Baggs.............. 378-379
  near Dixon.............. 375-376
  near Slater, CO.............. 372-373

Page
Little Wind River, above Arapahoe............ 46-48
  near Riverton............................. 54-55
  South Fork, above Washakie Reservoir, near Fort Washakie..................... 44-45
Lodge Grass Creek at State line, near Wyola, MT............................. 125
Lodgepole Creek tributary No. 2 near Albin... 430
Lookout, Laramie River near.................. 295
Lovell, Shoshone River near.................. 109-110
Lucerne, Bighorn River at.................... 67
Lyman, Blacks Fork near...................... 356
  Smiths Fork near........................... 356

Madison River, below Madison Junction, Yellowstone National Park.............. 433
  near Madison Junction, Yellowstone National Park........................... 434
  near West Yellowstone, MT.................. 25-26
Madison River basin, gaging station records in.................................... 23-26
Manderson, Nowood River at................... 79
Manila, UT, Henrys Fork near................. 364-365
Mason, North Piney Creek above Apperson Creek, near............................ 322
Mayoworth, North Fork Powder River below Pass Creek, near....................... 153
Meadow Canyon Creek at Marbleton............. 450
Mean concentration, definition of............ 14
Mean discharge, definition of................ 11
Medicine Bow, Little Medicine Bow River, at Boles Spring, near..................... 225
  near....................................... 222-224
Medicine Bow River, above Seminoe Reservoir, near Hanna.................. 226-227
  tributary near Hanna....................... 429
Meeteetse, Greybull River at................. 83
Merna, South Horse Creek near................ 314
Metamorphic stage, definition of............. 12
Methylene blue active substance, definition of........................... 12
Micrograms per gram, definition of........... 12
Micrograms per liter, definition of.......... 12
Middle Creek at East Entrance, Yellowstone National Park........................... 91
Middle Piney Creek near Big Piney............ 451
Millburne, Blacks Fork near.................. 354
Milligrams of carbon per area or volume per unit time [mg C/(m^2.time) for periphyton and macrophytes and mg C/(m^3.time)] for phytoplankton...... 13
Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2.time) for periphyton and macrophytes and mg O_2/(m^3.time)] for phytoplankton..... 13
Milligrams per liter, definition of.......... 12
Mills, North Platte River at................. 254
Miscellaneous sites, analyses of samples collected at............................ 433-454
  discharge measurements at.................. 432
Mitchell, NE, North Platte River at.......... 310
Monument Draw at lower station, near Hudson.. 428
Moorcroft, Belle Fourche River below......... 196
  Donkey Creek near.......................... 195
  Keyhole Reservoir near..................... 197
Moorhead, MT, Powder River at................ 185-186
Moran, Buffalo Fork above Lava Creek, near... 405
  Pacific Creek at........................... 404
  Snake River near........................... 403
Mud Spring Hollow near Church Butte, near Lyman.............................. 431
Muddy Creek (tributary to Green River) near Big Piney.............................. 450
Muddy Creek (tributary to Wind River) near Shoshoni........................... 58
Murray ditch at Wyoming-South Dakota State line............................. 204

National Geodetic Vertical Datum, definition of........................... 12
National stream-quality accounting network, definition of........................... 17
Natural substrate, definition of............. 15
New Fork Lake, Site 1........................ 440-441
  Site 2..................................... 436-439
New Fork River, at inlet to New Fork Lake, near Pinedale........................... 436
  at outlet to New Fork Lake, near Pinedale.. 442
  near Big Piney............................. 320-321
Newcastle, Beaver Creek near................. 192-193
Niobrara River at Wyoming-Nebraska State line 206

Page
Niobrara River basin, gaging station record in................................ 206
North Brush Creek near Saratoga.............. 209
North Horse Creek above Sherman Ranger Station................................ 313
North Piney Creek, above Apperson Creek, near Mason............................. 322
  at Big Piney............................... 450
North Platte River, above Poison Spider Creek, near Goose Egg.................. 252-253
  above Seminoe Reservoir, near Sinclair..... 218-220
  at Alcova.................................. 236-239
  at Casper.................................. 256-257
  at Highway 130, near Saratoga.............. 216
  at Mills................................... 254
  at Mitchell, NE............................ 310
  at Orin.................................... 276-278
  at Wyoming-Nebraska State line............. 307-309
  below Casper............................... 258-259
  below Glendo Reservoir..................... 280-281
  below Guernsey Reservoir................... 283-284
  below Whalen diversion dam................. 285
  near Glenrock.............................. 262-263
  near Goose Egg............................. 247-251
  near Northgate, CO......................... 207-208
Northgate, CO, North Platte River near....... 207-208
Nowater Creek, East Fork, near Colter........ 68
  North Prong East Fork, near Worland........ 428
Nowood River, at Manderson................... 79
  near Ten Sleep............................. 76-77
  tributary No. 2 near Basin................. 428
Numbering system for wells and miscellaneous sites.................... 16-17

Oakley, UT, West Fork Bear River at Whitney Dam, near...................... 381
Organic mass, definition of.................. 10
Organism, definition of...................... 12
Organism count/area, definition of........... 12
Organism count/volume, definition of......... 12
Orin, North Platte River at.................. 276-278
Orpha, La Prele Creek near................... 273
Other data available......................... 20
Owl Creek, South Fork, below Anchor Reservoir................................ 65-66
  South Fork, near Anchor.................... 63-64

Pacific Creek at Moran....................... 404
Paint Rock Creek near mouth, below Hyattville 78
Parkman, Elkhorn Creek above Fuller Ranch Ditch, near............................ 118
  Red Canyon Creek near...................... 121
  Twin Creek near............................ 124
  West Fork Little Bighorn River near........ 119
  West Pass Creek near....................... 122
Partial-record station, definition of........ 12
Partial-record stations, discharge at........ 428-431
Particle-size, definition of................. 12
Particle-size classification, definition of.. 12-13
Pass Creek near Elk Mountain................. 217
Pathfinder Reservoir near Alcova............. 234
Percent composition, definition of........... 13
Periphyton, definition of.................... 13
Pesticides, definition of.................... 13
Phytoplankton, definition of................. 13
Picocurie, definition of..................... 13
Pine Creek, above Fremont Lake............... 318
  at inlet to Fremont Lake, near Pinedale.... 442
  at outlet to Fremont Lake, near Pinedale... 449
  at State Highway 187, in Pinedale.......... 449
Piney Creek, at Kearny....................... 182
  at Ucross.................................. 183
Pioneer Canal. See Laramie River and Pioneer Canal.
Plankton, definition of...................... 13
Platte River basin, analyses of samples collected at miscellaneous site in..... 435
  crest-stage partial-record stations in..... 429-430
  discharge measurements at miscellaneous sites in................................. 432
  gaging-station records in.................. 207-311
Polychlorinated biphenyls, definition of..... 13
Popo Agie River, at Hudson Siding, near Lander.................................. 49
  near Arapahoe.............................. 51-53
Powder River, at Arvada...................... 173-176
  at Moorhead, MT............................ 185-186
  at Sussex.................................. 163-168
  Middle Fork, above Kaycee.................. 149-150
    near Barnum.............................. 146

	Page
Powder River, near Kaycee	154
North Fork, below Bull Creek, near Hazelton	152
below Pass Creek, near Mayoworth	153
near Hazelton	151
South Fork, near Kaycee	155-159
near Powder River	428
Powell, Bitter Creek below sewage lagoon, near	104
Prairie Dog Creek near Acme	141
Precipitation	4
Primary productivity, definition of	13
Publications on techniques of water-resources investigations	22
Rabbit Creek near Wheatland	430
Randolph, UT, Bear River near	394
Rawhide Creek near Lingle	304
Records, explanation of	17-19
Ground-water, collection	21
Surface-water, accuracy	19-20
collection	17-19
computation	17-19
other agencies	20
other data	20
Water-quality, analysis	20
collection	20
examination	20
sediment	21
temperature	20
Records of discharge collected by agencies other than the Geological Survey	20
Red Canyon Creek, at Wyoming-Montana State line	432
near Parkman	121
Redwater Creek at Wyoming-South Dakota State line	205
Reservoirs. See lakes and reservoirs.	
Riverton, Little Wind River near	54-55
Wind River at	42-43
Riverview, Cheyenne River at	191
Robertson, Blacks Fork near	353
East Fork of Smiths Fork near	355
Rock Creek (tributary to Clear Creek) near Buffalo	178
Rock Creek (tributary to Medicine Bow River) above King Canyon Canal, near Arlington	221
Rock Creek (tributary to Sweetwater River) above Rock Creek Reservoir	229
Rock Creek Reservoir, Rock Creek above	229
Rock Springs, Bitter Creek above Killpecker Creek, at	343
Killpecker Creek at	343
Runoff in inches, definition of	14
Sage Creek (North Platte River basin) tributary near Orpha	430
Sage Creek (Yellowstone River basin) at Sidon Canal, near Deaver	111-112
St. Xavier, MT, Bighorn Lake near	114
Bighorn River near	115
Salt Creek near Sussex	160-162
Salt River, above reservoir, near Etna	426-427
near Smoot	424
Sand Creek (tributary to Laramie River) at Colorado-Wyoming State line	288
Sand Creek (tributary to North Platte River) near Orin	430
Saratoga, North Brush Creek near	209
North Platte River at Highway 130, near	216
South Brush Creek near	210
Sediment, explanation of records collected	21
definition of	14
Seminoe Reservoir near Leo	228
Sevenmile Creek near Centennial	430
Shell, Shell Creek near	86
Shell Creek, above Shell Reservoir	85
at Porter Gulch, near Greybull	87
near Greybull	87
near Shell	86
Shell Reservoir, Shell Creek above	85
Sheridan, Big Goose Creek near	130
Goose Creek below	133-135
Little Goose Creek at	132
Sherman Ranger Station, North Horse Creek above	313
Shoshone River, above Dry Creek, near Cody	102
at Kane	113
below Buffalo Bill Reservoir	100-101
near Garland	103
near Lovell	109-110
Shoshone River, North Fork, near Wapiti	92-94
South Fork, above Buffalo Bill Reservoir	96-98
near Valley	95
Shoshoni, Fivemile Creek near	57
Muddy Creek near	58
Wind River above Boysen Reservoir, near	56
Sinclair, North Platte River above Seminoe Reservoir, near	218-220
Slate Creek near Fontenelle	453
Slater, CO, Little Snake River near	372-373
Slater Fork near	374
Slater Fork near Slater, CO	374
Slick Creek near Worland	75
Smiths Fork (tributary to Blacks Fork), East Fork of, near Robertson	355
near Lyman	356
Smiths Fork (Bear River basin), at Cokeville	397
near Border	396
Smoot, Salt River near	424
Snake River, above reservoir, near Alpine	421-422
below Flat Creek, near Jackson	409
near Moran	403
Snake River basin, gaging-station records in	403-427
Sodium-adsorption ratio, definition of	14
Solute, definition of	14
South Brush Creek near Saratoga	210
South Cottonwood Creek near Big Piney	316
South Horse Creek near Merna	314
South Piney Creek (tributary to Clear Creek) at Willow Park	181
South Piney Creek (tributary to Green River) near Big Piney	451
Special networks and programs	17
Specific conductance, definition of	15
Spring Creek above Barker Reservoir, near Millis	454
Squaw Hollow near Burntfork	431
Squirrel Creek near Decker, MT	138-140
Stage and discharge records, explanation of	17
Stage-discharge relation, definition of	15
Station number, downstream order and	16
Stinking Creek above Lawn Creek, near Alcova	241-245
Streamflow	5
definition of	15
Substrate, definition of	15
Artificial, definition of	15
Natural, definition of	15
Sulphur Creek, above reservoir, near Evanston	384
below reservoir, near Evanston	385
Sunshine, Wood River at	82
Surface area, definition of	15
Surface pond at Cordero Mine	435
Surface-water records, explanation of	17-19
Surficial bed material, definition of	15
Suspended, definition of	15
Recoverable, definition of	14
Total, definition of	14
Suspended sediment, definition of	14
Suspended-sediment, concentration, definition of	14
discharge, definition of	14
load, definition of	14
total, definition of	14
recoverable, definition of	14
Sussex, Powder River at	163-168
Salt Creek near	160-162
Sweetwater River, near Alcova	231-232
near Sweetwater Station	230
Sweetwater Station, Sweetwater River near	230
Swift Creek near Afton	425
Sybille Creek, above Canal No. 3, near Wheatland	298
above Mule Creek, near Wheatland	296-297
Tarter Gulch near Big Piney	451
Taxonomy, definition of	15
Ten Sleep, Nowood River near	76-77
Terms and abbreviations, definition of	10-16
Thermograph, definition of	15
Thief Creek at mouth, near Millis	453
Thomas Fork near Wyoming-Idaho State line	402
Tie Down Gulch near Worland	428
Time-weighted average, definition of	15
Tipperary, Crow Creek near	36-37
Tongue River, at State line, near Decker, MT	142-145
near Dayton	126
Tons per acre-foot, definition of	15
Tons per day, definition of	15
Torrington, Cherry Creek drain near	305

Page
Total, definition of 14
Total coliform bacteria, definition of 10
Total load, definition of 15
Total organism count, definition of 12
Total recoverable, definition of 14
Total sediment discharge or total sediment load, definition of 14
Trout Creek near Fort Washakie 428
Turner Creek near Osage 429
Twin Creek near Parkman 124
Two Rivers, Laramie River at 291
  Little Laramie River at 292

Ucross, Clear Creek at 180
  Piney Creek at 185
Unnamed tributary to Bighorn River, at north edge of Worland 432
Uva, Chugwater Creek near 301

Valley, South Fork Shoshone River near 95
Viola, La Barge Creek near 323

Wagon Gulch near Dubois 428
Wagonhound Creek near La Bonte 274
Wapiti, North Fork Shoshone River near 92-94
Water analysis 20
Water-quality records, explanation of 20
Water temperature 20
Water year, definition of 15
Watkins Draw near Lost Springs 430
WATSTORE, access to, data 21
WDR, definition of 15
Weighted average, definition of 16
Well number 16
West Pass Creek near Parkman 122
Weston, Little Powder River above Dry Creek, near 187
Wet mass, definition of 10
West Yellowstone, MT, Firehole River near 23
  Gibbon River near 24
  Madison River near 25-26
Whalen diversion dam, North Platte River below 285
Wheatland, Sybille Creek, above Canal No. 3, near 298
  above Mule Creek, near 296-297
  Wheatland Creek below 299
Wheatland Creek below Wheatland 299

Page
Whistle Creek near Garland 107-108
Willow Creek near Dixon 377
Willow Park, South Piney Creek at 181
Wind River, above Boysen Reservoir, near Shoshoni 56
  at Riverton 42-43
  below Boysen Reservoir 59-62
  East Fork, near Dubois 34-35
  near Crowheart 41
  near Dubois 32-33
Wolf, Wolf Creek at 127
Wolf Creek at Wolf 127
Wood River, at Sunshine 82
  tributary at mouth 434
Woodruff Narrows Reservoir near Woodruff, UT. 392
Woodruff, UT, Bear River above reservoir, near 389-391
  Bear River below reservoir, near 393
  Woodruff Narrows Reservoir near 392
Woods, Laramie River and Pioneer Canal near 286-287
Worland, Bighorn River at 74
  Fifteenmile Creek, near 69-73
  Slick Creek near 75
WSP, definition of 16
Wyola, MT, Little Bighorn River at State line, near 120
  Lodge Grass Creek at State line, near 125

Yellow Creek at mouth, near Evanston 387
Yellowstone National Park:
  Middle Creek at East Entrance 91
Yellowstone River, at Corwin Springs, MT 27
  at Fishing Bridge, Yellowstone National Park 433
  below Fishing Bridge, Yellowstone National Park 433
  below Fishing Bridge lagoons, Yellowstone National Park 433
Yellowstone River basin, analyses of samples collected at miscellaneous sites in 433-434
  crest-stage partial-record stations in 428-429
  discharge measurements at miscellaneous sites in 432
  gaging-station records in 27-189
  reservoirs in 188-189

Zooplankton, definition of 13

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^{2})
	4.047×10^{-1}	square hectometers (hm^{2})
	4.047×10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590×10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^{3})
	3.785×10^{-3}	cubic meters (m^{3})
million gallons	3.785×10^{3}	cubic meters (m^{3})
	3.785×10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832×10^{1}	cubic decimeters (dm^{3})
	2.832×10^{-2}	cubic meters (m^{3})
cfs-days	2.447×10^{3}	cubic meters (m^{3})
	2.447×10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^{3})
	1.233×10^{-3}	cubic hectometers (hm^{3})
	1.233×10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832×10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309×10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381×10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

4771